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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Building 371/374 Closure Project Decommissioning Operations Plan

Revision 0

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ACRONYMS AND ABBREVIATIONS

ACI	American Concrete Institute
ACM	asbestos containing material
AR	Administrative Record
ARARs	applicable or relevant and appropriate requirements
AST	aboveground storage tank
BIO	Basis for Interim Operation
CCR	Code of Colorado Regulations
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHWA	Colorado Hazardous Waste Act
cm	centimeter
CPB	Closure Project Baseline
CSRF	central size reduction facility
CSV	central storage vault
CWTS	Caustic Waste Treatment System
DDCP	Decontamination and Decommissioning Characterization Protocol
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy, Rocky Flats Field Office
DOP	Decommissioning Operations Plan
DOT	U.S. Department of Transportation
dpm	disintegrations per minute
DPP	Decommissioning Program Plan
EPA	U.S. Environmental Protection Agency
ER	environmental restoration
ESH&Q	Environment, Safety, Health & Quality
ES&H	environmental safety and health
FDPM	Facility Disposition Program Manual
FP	filter plenum
FUD	Facility Use Decision
FY	fiscal year
HASP	Health and Safety Plan
HDPE	high-density polyethylene

HEPA	high efficiency particulate air (filter)
HVAC	heating, ventilation and air conditioning (system)
IA	Industrial Area
IAEA	International Atomic Energy Agency
I/O	in/out (station)
ISMS	Integrated Safety Management System
ISSR	in situ size reduction
ITDC	inner tent demolition chamber
IV	independent verification
IWCP	Integrated Work Control Program
LDR	Land Disposal Restriction
LL	low-level (waste)
LLM	low-level mixed (waste)
LRA	lead regulatory agency
MAA	material access area
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NTS	Nevada Test Site
OSHA	Occupational Safety and Health Act
PA	Protected Area
PCBs	polychlorinated biphenyls
PDS	pre-demolition survey
PDSP	Pre-Demolition Survey Plan
PDSR	Pre-Demolition Survey Report
PMP	Project Management Plan
POD	Plan of the Day
POW	Plan of the Week
PPE	personal protective equipment
Pu	plutonium
PU&D	property use and disposition
PuSPS	Plutonium Stabilization and Packaging System
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFCAB	Rocky Flats Citizens Advisory Board
RFCLOG	Rocky Flats Coalition of Local Governments

RFETS	Rocky Flats Environmental Technology Site
RISS	Remediation, Industrial Area Decommissioning, and Site Services
RLC	reconnaissance level characterization
RLCP	Reconnaissance Level Characterization Plan
RLCR	Reconnaissance Level Characterization Report
RSOP	RFCA Standard Operating Protocol
SCO	surface-contaminated object
SGS	segmented gamma scanner
SNM	special nuclear material
S/R	stacker retriever
SRA	support regulatory agency
SRS	Savannah River Site
SS&C	sand, slag & crucible
STP	Site Treatment Plan
TBD	to be determined
TPH	total petroleum hydrocarbons
TRM	transuranic mixed (waste)
TRU	transuranic (waste)
TSCA	Toxic Substances Control Act
TSD	treatment, storage, disposal (facility)
UCNI	Uncontrolled Classified Nuclear Information
UST	underground storage tank
WAC	waste acceptance criteria
WIPP	Waste Isolation Pilot Plant
WSRIC	Waste Stream & Residue Identification & Characterization

EXECUTIVE SUMMARY

The Building 371/374 Closure Project is comprised of Buildings 371, 374, 373, 374A, 377, 378, 381, and 14 aboveground storage tanks (ASTs), which are located within the Protected Area (PA) of the Rocky Flats Environmental Technology Site (RFETS or Site). Closure is necessary to meet the goals of the Rocky Flats Cleanup Agreement (RFCA) and the Rocky Flats Closure Project Baseline (CPB).

Building 371/374 was designed and constructed in the 1970s to replace the plutonium pit assembly and pyrochemical operations in Building 776/777, and the residue and waste operations in Building 771/774. Construction was completed in 1980; however, due to deficiencies in the design and construction of its process equipment, Building 371/374 was unable to achieve designed plutonium recovery capabilities. As a result, plutonium recovery operations in Building 371 were curtailed in 1981. However, waste operations, including material transfer, waste incineration, and laboratory support, continued functioning in Building 371/374.

With suspension of nuclear weapons production operations at the Site in 1989, and subsequent discontinuation of the production mission in 1992, activities within Building 371/374 were re-directed to support the Rocky Flats Vision of safe, accelerated, cost-effective closure. In accordance with the current decommissioning schedule for the Building 371/374 Closure Project, facility components will be decontaminated, size reduced, and removed from the buildings and the buildings will be demolished by June of 2005, at which time environmental restoration (ER) activities will be undertaken to remediate soils, groundwater, and surface water contaminated as a result of building operations.

Hazards associated with Building 371/374 operations include radiological and chemical contamination on building surfaces and in building equipment and systems, and physical hazards common to standard industrial environments. Radiological contamination has been found within Buildings 371/374. Contamination is present on building surfaces (e.g., floors and walls) and in equipment and building systems (e.g., gloveboxes, process tanks and ancillary equipment, and ventilation ducts). Some equipment and areas within Building 371/374 have levels of radiological contamination exceeding 2,000 disintegrations per minute (dpm) per square centimeter (cm^2) removable and 50,000 dpm/100 cm^2 fixed plus removable. Also, radiological hazards are associated with the presence of in-process nuclear material, nuclear material holdup, other radioactive materials (e.g., containerized special nuclear material [SNM]), and radioactive and mixed wastes.

For planning purposes, the Building 371/374 Closure Project was divided into small, manageable groupings of similar rooms and equipment, referred to as Sets. The *RFETS Reconnaissance Level Characterization Plan (RLCP)* was then used to complete a reconnaissance level characterization (RLC) for each Set.[1] Results were documented in *the Building 371/374 Closure Project Reconnaissance Level Characterization Report (RLCR)*, which identifies the presence of radiological and chemical contamination in and around Building 371/374. Following the RLC, component removal, size reduction, decontamination, and demolition methodologies were examined to complete the development of the decommissioning sequence.

Based upon their review of the RLCR, the U.S. Department of Energy, Rocky Flats Field Office (DOE) and the Colorado Department of Public Health and Environment (CDPHE) concur that Buildings 371 and 374 have significant contamination or hazards and are therefore a Type 3 facilities; the vapor effect tanks and exterior of the spray dryer tank are without significant contamination or hazards, but in need

[1] Since completion of the RLCR, more detailed planning has been completed for the Building 371/374 Closure Project. As a result, the original Sets have been divided into Dismantlement Sets (i.e., equipment and rooms with removable contamination greater than 2,000 dpm) and Decommissioning Areas (i.e., rooms and equipment with removable contamination less than 2,000 dpm), (see Section 4.3 for details).

of decontamination, and therefore considered Type 2 facilities; and the remaining buildings and tanks are free of contamination and therefore classified as Type 1 facilities.

In accordance with the *RFETS Decommissioning Program Plan (DPP)*, Type 1 facilities may be decommissioned using Site procedures upon notification of the Lead Regulatory Agency (LRA), (i.e., CDPHE) and Type 2 facilities may be decommissioned in accordance with the Site's approved RFCA Standard Operating Protocols (RSOPs) or included with Type 3 buildings in an approved Decommissioning Operations Plan (DOP). As a result, the scope of this DOP is limited to Building 371/374 and the contaminated tanks.

Decommissioning activities will be planned and executed in accordance with the *RFCA Standard Operating Protocol (RSOP) for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition*. This DOP describes how the RSOPs will be implemented for the Type 3 and Type 2 facilities in the Building 371/374 Closure Project.

1.0 INTRODUCTION

In 1996, DOE, the Environmental Protection Agency (EPA), and CDPHE executed RFCA.[2] RFCA is the Federal Facility Compliance Agreement and Consent Order negotiated pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)[3], the Resource Conservation and Recovery Act (RCRA)[4], and Colorado Hazardous Waste Act (CHWA).[5] RFCA provides the regulatory framework for attaining the goals expressed in the Rocky Flats Vision.[6] The overriding goal for RFETS is to achieve accelerated cleanup and Site closure in a manner that is safe to workers and the public, and protective of the environment.

1.1 Alternatives Analysis and Selection

Three alternatives were evaluated for the near-term and long-term management and ultimate closure of RFETS facilities[7] (i.e., reuse, no action with safe shutdown, and decommissioning). As described in the *RSOP for Facility Disposition*, RFETS facilities will be decommissioned because this alternative supports the goal of safe, accelerated, cost-effective closure, while maintaining long-term protection of public health and the environment. By removing RFETS facilities and associated contamination, risks posed by the Site will be reduced or eliminated.

1.2 Scope and Purpose

Decommissioning activities for the Building 371/374 Closure Project will be planned and executed within the scope of the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition*, which discuss the applicable removal, size reduction, decontamination, and demolition techniques and associated hazards, and outline the measures that will be employed to protect worker health and safety and the environment. The purpose of this DOP is to describe the specific decommissioning activities that will be performed in the Type 3 and Type 2 facilities within Building 371/374 Closure Project (e.g., decontamination and demolition of the central storage vault [CSV]). As determined by the RLC and reported in the *RLCR for the Building 371/374 Cluster*, Buildings 371 and 374 have been identified as Type 3 facilities, and the ASTs that are used to support the aqueous waste treatment system (i.e., Tanks T-167, T-168, T-169, and T-224 through T-228) are Type 2 facilities. The remaining facilities are Type 1 facilities and therefore not included within the scope of this DOP.

The DOP is arranged in 12 sections. Project organization, roles and responsibilities, and interfaces with the regulators and other stakeholders are discussed in Section 2.0. Building 371/374, its operational history, and current status are described in Section 3.0. The project approach is described in Section 4.0. Waste management is discussed in Section 5.0, closure options for the Building 371/374 RCRA-

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2 Final Rocky Flats Cleanup Agreement (RFCA), Federal Facility Agreement and Consent Order (CERCLA VIII-96-21, RCRA 3008[h] VIII-96-01, State of Colorado Docket 96-07-19-01), July 19, 1996.

3 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9620 *et seq.*

4 Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments Act (HSWA) and the Federal Facility Compliance Act (FFCAct), 42 USC 6901 *et seq.*

5 Colorado Hazardous Waste Act (CHWA), CRS 25-15-101 *et seq.*

6 The Rocky Flats Vision is contained in Appendix 9 of RFCA.

7 The terms "building" and "facility" are used interchangeably in this DOP.

regulated units are presented in Section 6.0, applicable or relevant and appropriate requirements (ARARs) are described in Section 7.0, and anticipated environmental consequences are presented in Section 8.0. A current project schedule is provided in Section 9.0, notification requirements are contained in Section 10, records management is discussed in Section 11.0, and the comment responsiveness summary is contained in Section 12.0.

2.0 PROJECT ORGANIZATION

This section of the DOP provides a brief description of the Building 371/374 Closure Project organization structure, functions, and interfaces as they pertain to facility management and decommissioning. This information is being supplied to identify reporting relationships and responsibilities. The organizational structure is not an enforceable part of the DOP, and DOE or its contractor may alter the structure without prior notification to or approval of the LRA. Significant organization changes (e.g., management-level changes) will be shared with the LRA as part of the RFCA consultative process.

2.1 Project Team Organization Structure

The Building 371/374 Closure Project will function under an integrated scope, schedule, and cost control system that identifies roles, responsibilities, and interfaces. The project organization is described below, and depicted in Figure 1.

- **Building 371/374 Closure Project Management** – Accountable for the safe planning, execution, and successful completion of the Building 371/374 Closure Project in accordance with applicable standards and requirements.
- **Environment, Safety, Health & Quality (ESH&Q)** – Provides program, policy, and regulatory guidance to Building 371/374 facility management, operations, and project organizations; performs inspections; manages radiological operations; coordinates assessments; collects, tracks, and trends Closure Project ESH&Q metrics; and provides engineering services and planning support to the Closure Project team.
- **Administrative Services** – Assists the Closure Project Manager in resource allocation planning, manages the Building 371/374 Closure Project training program, prepares Closure Project occurrence reports, and provides miscellaneous project administrative support (e.g., document preparation, control, and maintenance).
- **Project Planning, Control, and Resource Allocation** – Manages the Closure Project change control process; monitors and reports Closure Project performance; manages work control, including plan of the day (POD) and plan of the week (POW); administers subcontracts and task orders; and purchases equipment and supplies required to support Closure Project activities.
- **Human Resources** - Provides support in the area of human relations and labor relations, and administers the employee compensation program.
- **Building 371/374 Facility Management** – Operates and maintains Building 371/374 and associated facilities to support Closure Project activities, ensures compliance with the *Building 371/374 Basis for Interim Operation (BIO)*, maintains facility safety category systems (e.g., criticality, fire, ventilation), releases/authorizes work, conducts facility surveillances, maintains facility security, manages facility emergency preparedness, conducts RCRA inspections, and maintains RCRA compliance.
- **Building 374 Waste Operations** - Operates and maintains the Building 374 Aqueous Waste Treatment System, which processes low-level (LL) and low-level mixed (LLM) wastes from various Site operations. The system consists of six processes: (1) waste receiving and neutralization, (2) acid waste neutralization, (3) precipitation, (4) evaporation, (5) spray dryer and saltcrete, and (6) vacuum filter and sludge solidification.

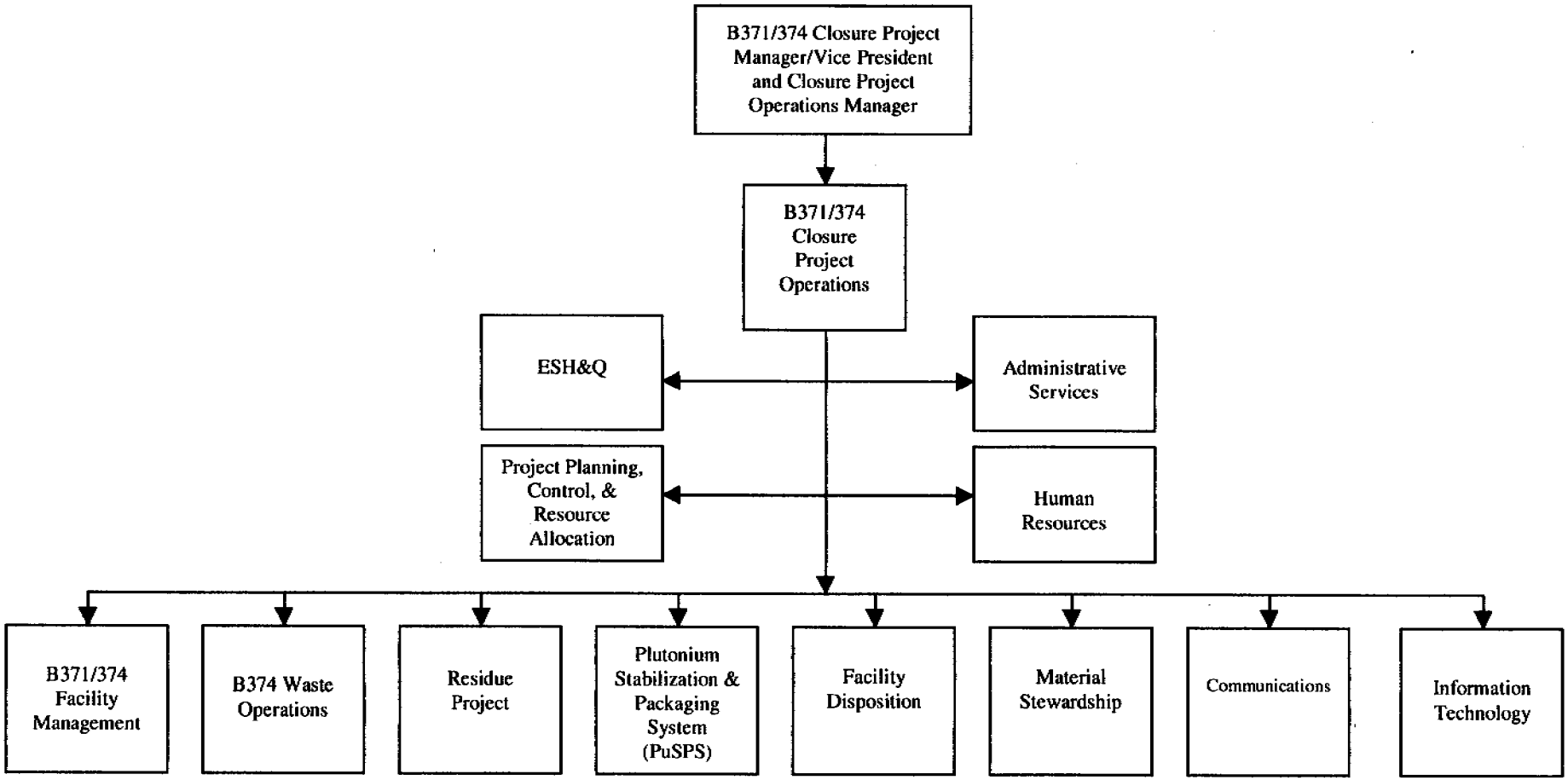

Figure 1. Building 371/374 Closure Project Organization

- **Residue Project** – Responsible for the stabilization of the Site's remaining inventory of residues and mixed residues:
  - Repackage sand, slag, and crucible (SS&C) for off-Site shipment.
  - Repackage ash and dry combustible residues for off-site shipment.
- **Plutonium Stabilization and Packaging System (PuSPS)** – Removes loose oxide from plutonium metals, thermally stabilizes the oxide, and packages metals and oxide for shipment to DOE's Savannah River Site (SRS).
- **Facility Disposition** – Accountable for the planning and execution of deactivation and decommissioning activities.
  - Planning and Work Package Development: Provides planning, start-up, and technical support for required activities. Functions include routine planning, scheduling, engineering, and operations support (e.g., preparation of Integrated Work Control Program (IWCP) work packages, procedures, and property disposition); closure of the PA; deactivation scheduling and execution; decommissioning planning and execution; and demolition planning and execution. Provides budget and scheduling support, develops data necessary to support the *RFETS 2006 Plan*[8] and the *Building 371/374 Project Management Plan (PMP)*, performs variance analysis, and tracks Closure Project status.
  - Baseline and Deactivation Operations: Responsible for the removal of SNM holdup and "loose" materials, such as combustibles, furniture, and waste chemicals; preparation of gloveboxes for decommissioning; removal of organic liquids from equipment and systems; removal of classified material and tooling; and removal of glovebox line- and non-line-generated materials.
  - Technology Transfer & Development: Responsible for researching, developing, and procuring decontamination and size reduction techniques and equipment.
- **Material Stewardship** – Provides commodities to support Closure Project needs; manages regulated wastes and coordinates inter-building material movements through facility disposition; provides nuclear material safeguards support (e.g., SNM inventory, assay, and accounting); and provides non-destructive assay services.
- **Communications** – Maintains the Building 371/374 Closure Project website (http://rfetshp/371/) and provides Project information to the public and other stakeholders.
- **Information Technology** – Provides computer and data management support to Closure Project management and personnel.

2.2 Project Team Interfaces

As owner of the Site, DOE oversees closure operations, provides input to the contractor regarding funding and overall direction, and communicates with the regulators and other stakeholders (e.g., the Rocky Flats Citizens Advisory Board [RFCAB], the Rocky Flats Coalition of Local Governments [RFCLOG]) regarding the status of the Building 371/374 Closure Project. In addition, DOE is responsible for the enforcement of health and safety provisions of certain federal regulations (e.g., Occupational Safety and Health Act [OSHA] requirements).

[8] Rocky Flats Environmental Technology Site Closure Project Management Plan (latest revision).

CDPHE is the LRA for the Industrial Area (IA), and thus is the LRA for decommissioning activities conducted pursuant to RFCA. EPA is the support regulatory agency (SRA) in the IA. As a result, both CDPHE and EPA participate in oversight of decommissioning activities at RFETS. The Defense Nuclear Facilities Safety Board (DNFSB) oversees the storage of source, SNM, and byproduct material and radioactive wastes not subject to CDPHE or EPA regulation. CDPHE, EPA, and the DNFSB have executed a Memorandum of Understanding (MOU) with DOE to define their respective roles and responsibilities for oversight of activities conducted in the IA.[9]

2.3 Working Relationships

The personnel of DOE, its contractor and subcontractors, and the regulators (i.e., CDPHE, EPA) will use the RFCA consultative process described in ¶¶51-61 of RFCA, in Appendix 2 of RFCA, and in Section 1.1.1 of the DPP to establish and maintain effective working relationships with each other and with stakeholders throughout the decommissioning process. To expedite decommissioning activities, the parties have agreed the LRA may participate in the IWCP process to facilitate its exercise of authority under RFCA.[10] For the purposes of the Building 371/374 Closure Project, this means the LRA has an opportunity to discuss issues and ask questions, and to access IWCP-related information for review, but it does not mean the LRA has approval authority for IWCP work packages. DOE and its contractor will advise the LRA of IWCP meetings and roundtable review sessions, and will provide relevant information in a timely manner. The LRA, DOE, and the contractor or subcontractors may use these roundtable review sessions as a forum for RFCA consultation. If this process does not address the LRA's concerns about a particular activity, the LRA may issue a "stop work" order pursuant to RFCA.[11]

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9 Memorandum of Understanding Governing Regulation and Oversight of Department of Energy Activities in the Rocky Flats Environmental Technology Site Industrial Area, executed February 15, 1996.

10 The IWCP process is summarized in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and detailed in the RFETS IWCP Manual (MAN-071-IWCP), (latest revision).

11 See RFCA (¶¶176-180).

3.0 FACILITY DESCRIPTION

The Building 371/374 Closure Project is comprised of Building 371/374 and associated support structures located within the Site's IA (see Table 1). Figure 2 shows the relative location of these facilities. Figures 3 through 6 show the layout of Building 371/374. Facility-specific details are contained in the RLCR. A brief overview of the Type 3 and Type 2 facilities is provided below.

Building 371 (Type 3) is the plutonium recovery facility. It is a four-level structure of reinforced concrete containing approximately 315,022 ft^2 of floor space. The sub-basement (Level 1) consists primarily of the lower part of the CSV and stacker retriever (S/R) maintenance bay. The main basement (Level 2) houses heating, ventilation, and air conditioning (HVAC) equipment and mechanical utilities, as well as the upper part of the CSV and maintenance bay, and small plutonium processing areas. The ground floor (Level 3) contains the majority of the plutonium recovery processing equipment, including tanks and gloveboxes. The attic (Level 4) provides protected space for air distribution systems, chemical piping, electrical conduit, and motor generators. Stairways and an elevator provide access to the various levels and airlock double doors facilitate movement of personnel and material within the building.

Building 374 (Type 3) is the process waste treatment facility. It consists of a main floor, basement, and mezzanine which house tanks for receiving and storing liquid process wastes; a drum handling and storage area; and support equipment, mechanical equipment, and utility areas. The building is a reinforced concrete structure located adjacent to the east side of Building 371.

Exterior Storage Tanks (Type 2) - Nine ASTs have been identified as Type 2 facilities:

- Tank T-167 is a nitric acid storage tank, located north of the Building 374 side of Building 371/374.
- Tank T-168 and Tank T-169 are potassium hydroxide storage tanks, located north of the Building 374 side of Building 371/374.
- Tanks T-224, T-225, T-226, and T-227 are the 1st through 4th effect vapor body tanks associated with the Building 374 evaporation process. The four tanks are located north of the Building 374 side of Building 371/374 and have a concrete berm, which is constructed of portable concrete road barriers.
- Tank T-228 is the spray dryer tank, located north of the Building 374 side of Building 371/374. The upper part of the tank extends into the mezzanine level of Building 371/374. The tank has a concrete berm and is surrounded by a plywood weather wall.

3.1 Building History

Building 371/374 was constructed in the 1970s to replace the plutonium pit assembly and pyrochemical operations in Building 776/777, and residue and waste operations in Building 771/774. The design was more sophisticated and complex than any other buildings at the Site, emphasizing automatically controlled, remotely operated processes and the ability to withstand design-basis accidents such as earthquakes, tornadoes, winds, and fires. Construction was completed in 1980, at which time process units were available for "cold" system operation testing. DOE authorized "hot" testing in 1981. Due to deficiencies in the design and construction of the process equipment and safety-related incidents, as well as the presence of excessive SNM holdup in equipment and piping, DOE directed the Site contractor to curtail plutonium recovery operations in Building 371/374 in 1981. Modifications to Building 371/374 were in process when weapons production operations were terminated at the Site in 1989.

Operations in Building 371/374 focused on the recovery of plutonium from RFETS mission activities (i.e., nuclear weapons parts fabrication, component assembly, and research and development activities) and the treatment of aqueous wastes. Other operations included material storage and transfer, waste incineration, and laboratory support.

Table 1. Facilities Comprising the Building 371/374 Closure Project

Facility	Type	Description
Building 371	3	Plutonium recover facility
Building 374	3	Process waste treatment facility
Building 373	1	Cooling tower[a]
Building 374A	1	Carpentry shops
Building 377	1	Air compressor building
Building 378	1	Waste collection pump house
Building 381	1	Fluorine storage building
Tanks T-163 and T-164	1	Product water tanks
Tank T-165	1	Cement silo
Tank T-170	1	Liquid nitrogen storage tank
Tank T-262	1	Petroleum underground storage tank (UST)[b]
Tank T-262A	1	Petroleum AST
Tanks T-224 to T-227	2	Evaporation process vapor body tanks
Tank T-228	2	Spray dryer tank
Tank T-167	2	Nitric acid storage tank
Tanks T-168 and T-169	2	Potassium hydroxide storage tanks

[a] A new cooling tower is currently under construction. Building 373 will be taken out of service when the new tower is complete.

[b] In accordance with Attachment 13 to RFCA, the Site's 20 petroleum USTs have been drained and filled with polyurethane foam. Although soil and groundwater samples from the required site assessment met the 5,000 ppm total petroleum hydrocarbon (TPH) standard, the data will be reviewed during ER to determine whether this information is sufficient to support a decision to close the tanks in place, or whether additional information is required to make this decision. In either case, the petroleum USTs will be dispositioned under an approved ER decision document.

3.2 Current Status

With suspension of nuclear production operations at Rocky Flats in 1989, and the subsequent discontinuation of the production mission in 1992, activities conducted in Building 371/374 have been re-directed to support Site closure, including:

- Storage of plutonium and uranium metal, oxide, residues, transuranic (TRU) waste, transuranic mixed (TRM) waste, LL waste, and LLM waste;
- Completion of mission risk reduction activities, including residue stabilization (i.e., wet combustibles, dry combustibles, ash, fluorides, salts, and sand, slag, and crucible), caustic waste treatment, aqueous waste treatment, and removal of SNM holdup; and
- Completion of deactivation activities in preparation for decommissioning, including shipment of wastes and SNM.

In addition, facility management activities are performed to support day-to-day operations and to ensure compliance with the *Building 371/374 BIO*[12] and other Site requirements, including general housekeeping, routine waste management, maintenance of vital safety systems, laboratory services, records management, inspections, and surveillances.

3.3 Expected Condition of the Type 3 and Type 2 Facilities at the Beginning of Decommissioning

Details concerning the condition of the buildings within the 371/374 Closure Project are provided in the RLCR. The Type 3 and Type 2 facilities will be decommissioned using a graded approach. As mission activities are completed in each area, deactivation activities will be undertaken to prepare for decommissioning in accordance with this DOP.

Throughout the course of the Building 371/374 Closure Project, the Site's Integrated Safety Management System (ISMS) will be implemented to provide configuration control and minimize the potential for uncontaminated facilities to become contaminated, or decontaminated facilities to be re-contaminated.[13]

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[12] Rocky Flats Environmental Technology Site, Basis for Interim Operation, Building 371/374 Complex, latest revision.

[13] ISMS and associated RFETS implementing programs are described in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*.

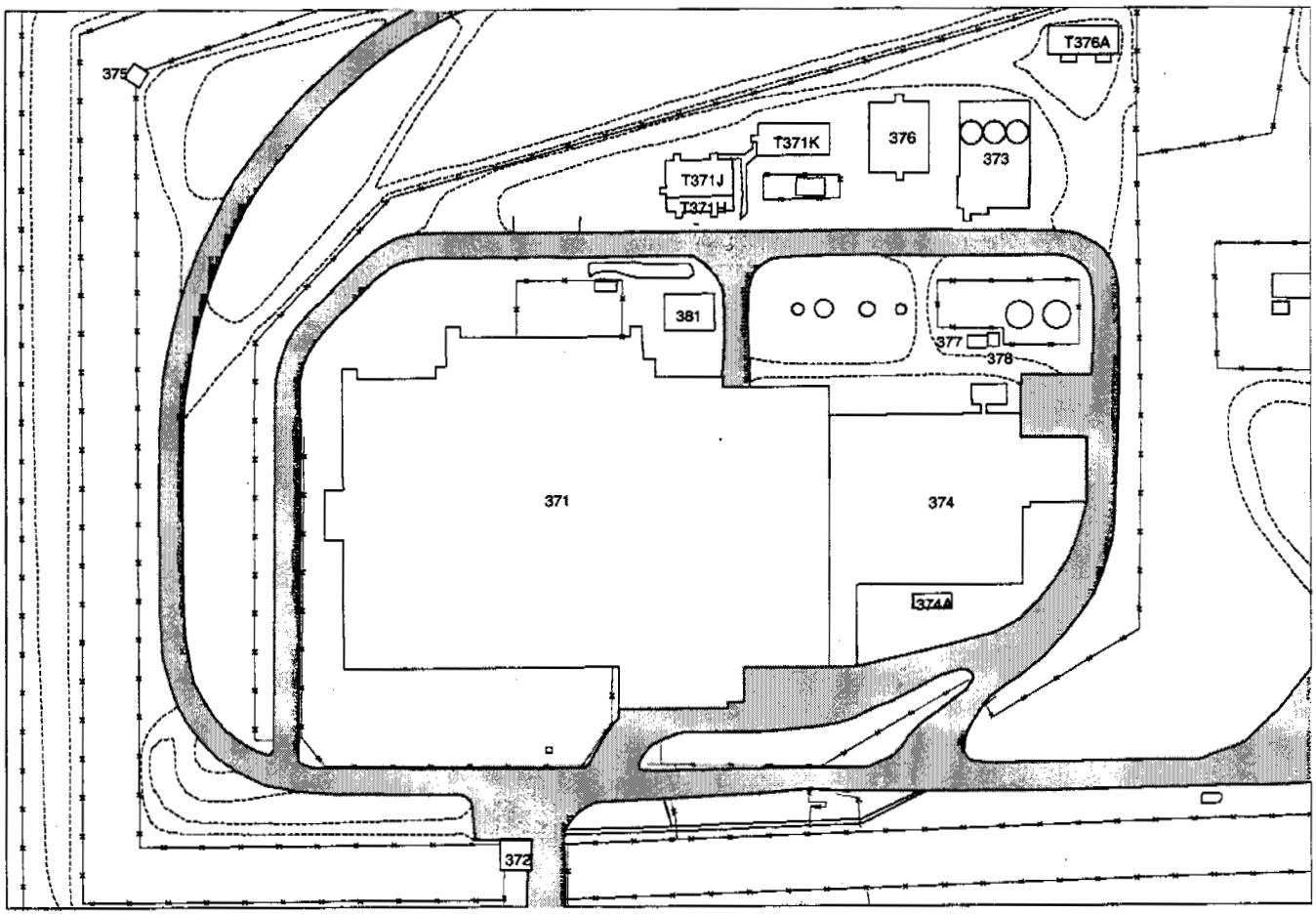

Figure 2. Building 371/374 Closure Project Facilities

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Persons with access to Uncontrolled Classified Nuclear Information (UCNI) may obtain this information from the Building 371/374 Closure Project Manager.

Figure 3. Building 371/374 Ground Floor Layout

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Persons with access to Uncontrolled Classified Nuclear Information (UCNI) may obtain this information from the Building 371/374 Project Manager.

Figure 4. Building 371/374 Basement Layout

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Persons with access to Uncontrolled Classified Nuclear Information (UCNI) may obtain this information from the Building 371/374 Closure Project Manager.

Figure 5. Building 371/374 Sub-Basement Layout

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Persons with access to Uncontrolled Classified Nuclear Information (UCNI) may obtain this information from the Building 371/374 Closure Project Manager.

Figure 6. Building 371/374 Attic Layout

4.0 PROJECT APPROACH

The decommissioning planning process for the Building 371/374 Closure Project is under way and the costs and schedules are included in the RFETS CPB. During the course of the Building 371/374 Closure Project, there may be instances where circumstances differ from those predicted. In such cases, planned activities may be revised without revising the CPB, consistent with RFCA and the DPP. Significant changes will be shared with the LRA as part of the RFCA consultative process and, where required, appropriate modifications will be made to the DOP in accordance with RFCA.

4.1 Work Planning and Execution

Decommissioning activities will be planned and executed in accordance with the RFETS ISMS, as described in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*. Measures employed to protect worker health and safety and the environment are described in *the RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition*, and discussed in relation to specific activities within the scope of this DOP.

4.2 Building 371/374 Facility Characterization

Facilities within the Building 371/374 Closure Project are being characterized using a four-step approach: scoping characterization, RLC, in-process characterization, and pre-demolition survey (PDS). The following paragraphs describe each step in more detail.

4.2.1 Scoping Characterization

During scoping characterization, existing records and documents were collected, and current and former Building 371/374 employees were interviewed to determine the radiological, chemical, and physical conditions of Building 371/374 and associated support facilities. Based on the information collected, the Building 371/374 Closure Project team proceeded to conduct the RLC in accordance with the requirements of the RFETS RLCP.

4.2.2 Reconnaissance Level Characterization

The purpose of RLC is to provide an initial assessment of the contamination, hazards, and other conditions associated with a facility. The overriding goal of RLC is to answer the following questions:

- What surfaces are suitable for unrestricted release?
- What surfaces will require further decontamination?
- What surfaces will be classified as radiological, hazardous, toxic, or asbestos waste?
- What type of decontamination will be required on specific surfaces?
- How will the surfaces be classified for PDS?
- How will the volumes of waste be classified?
- How will the volumes of waste be disposed?
- What equipment presents a decommissioning hazard?

The RLC included all facilities within the Building 371/374 Closure Project (i.e., Buildings 371, 374, 373, 374A, 377, 378, 381, and the ASTs), except the office building (Building 376) and the office trailers

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to the north of Building 371/374. Results are documented in the *RLCR for the Building 371/374 Cluster* and summarized in Table 2. The office building and trailers will be characterized in the same manner at a later time. Based on historical knowledge, they present no radiological, chemical, or unique physical hazards.

Hazards were assessed based on a review of historical and process knowledge, historical radiological and chemical data, and newly-acquired RLC data. Results from the RLC indicate the presence of radioactive contamination within Building 371 and Building 374, and possibly within the vapor effect tanks and the spray dryer. Radioactive contamination is present on surfaces (e.g., floors, walls and equipment) and in equipment and building systems (e.g., gloveboxes, process tanks and lines, and ventilation ducts). Some areas and equipment and systems have high levels of radioactive contamination. Also, radiological hazards are associated with the presence of in-process nuclear material, nuclear material holdup, other radioactive materials (e.g., containerized SNM and calibration sources), and radioactive and mixed waste. In addition, some elevated radioactivity was detected on metal roofing, which may be due to naturally-occurring radioactive constituents, such as radon decay products. This elevated activity will be investigated further through additional surveys and the collection of physical samples.

Residual amounts of toxic metals, organic solvents, and beryllium are present inside gloveboxes, process equipment and tanks, related piping, and plenums. Some equipment may contain oils contaminated with polychlorinated biphenyls (PCBs). Building 371 also contains considerable amounts of lead shielding, and numerous gloveboxes, equipment and containers are lined with lead. Asbestos-containing material (ACM) is present in most of the buildings in the form of floor and ceiling tile, mastic, and insulation. Some buildings have fluorescent light ballasts containing PCBs. In addition, chemical hazards are associated with in-process nuclear material and hazardous and mixed waste.

Based upon the RLC, and subject to concurrence by the LRA, Buildings 371 and 374 are considered to be Type 3 facilities; Tanks T-167 through T-169 and T-224 through T-228 are Type 2 facilities; and Buildings 373, 374A, 377, 378, 381, and the remaining tanks are Type 1 facilities.

The Type 1 facilities were characterized in accordance with the requirements for PDS, pursuant to the *RFETS Decontamination & Decommissioning Characterization Protocol (DDCP).*[14] To ensure these facilities remain free of contamination and the PDS data remain valid, isolation controls have been established, and the facilities posted accordingly. Isolation controls restrict the transfer, storage, and use of radioactive materials. Verification surveys will be performed prior to the release of these structures to confirm that radioactive material has not been introduced to these areas.

4.2.3 In-Process Characterization

Additional characterization will be conducted during decommissioning, as facility components are removed and building surfaces are further exposed. This type of characterization is referred to as in-process characterization. Data from in-process characterization is used to identify additional hazards; refine approaches to component removal, size reduction, and decontamination; revise waste volume estimates; and modify environmental, safety and health (ES&H) controls, as necessary. In-process characterization is also conducted to verify that decontamination activities have achieved the applicable performance specifications, such as release or reuse criteria and waste acceptance criteria (WAC) of the receiving disposal facility. Detailed information regarding the characterization process and associated requirements is contained in the DDCP.

[14] Rocky Flats Environmental Technology Site Decontamination and Decommissioning Characterization Protocol (M AN-077-DDCP), latest revision.

Table 2. Summary of Results from the Building 371/374 Reconnaissance Level Characterization Report

Building/ Facility	Chemical Contamination Indicated?	Type of Chemical Contamination	Location	Radiological Contamination Indicated?[a]	Type of Radiological Contamination	Location	Building Classification[a]
B371	Yes	Asbestos[d] Metals, organic solvents, beryllium, and PCBs	Multiple; including roofing material, panels, tiles & insulation As residuals inside gloveboxes, equipment, tanks, piping, and plenums	Yes	Fixed and removeable alpha[b]	Extensive; on interior building surfaces, on and in equipment and systems, and on metal roofing	Type 3
B374	Yes	Asbestos[d] Metals, organic solvents, beryllium, and PCBs	Multiple, including roofing material, panels, tiles, and insulation As residuals inside tanks, equipment, and piping	Yes[c]	Fixed and removeable alpha[b]	Extensive; on interior building surfaces, on and in equipment and systems, and on metal roofing	Type 3
B373	Yes	Asbestos[d]	Transite panels and piping insulation	No	None found	Not applicable	Type 1
B374A	Yes	Asbestos[d]	Ceiling and floor tile, and insulation	No	None found	Not applicable	Type 1
B377	Yes	Asbestos[d]	Transite panels, ceiling and floor tile, and insulation	No	None found	Not applicable	Type 1
B378	Yes	Asbestos[d]	Piping insulation	No	None found	Not applicable	Type 1
B381	Yes	Asbestos[d]	Ceiling and floor tile, and insulation	No	None found	Not applicable	Type 1

Table 2. Summary of Results from the Building 371/374 Reconnaissance Level Characterization Report

Building/ Facility	Chemical Contamination Indicated?	Type of Chemical Contamination	Location	Radiological Contamination Indicated?[c]	Type of Radiological Contamination	Location	Building Classification[a]
Tanks 163-165, 170, 262, & 262A	Yes	Asbestos[d]	Piping insulation	No	None found	Not applicable	Type 1
Tanks 167-169, 224-228	Yes	Asbestos[d] Acid and caustic Metals, organics, and beryllium	Piping insulation Some product tanks Vapor effect tanks and spray dryer tank	No	None found	Not applicable	Type 2

[a] Per the DPP, Type 3 facilities have significant contamination and/or hazards; Type 2 facilities do not have significant contamination or hazards, but are in need of decontamination; and Type 1 facilities are free of contamination. Building classification does not include environmental media or bulk media beneath the immediate surface of the floors.

[b] Contamination type on roofing to be confirmed; activity may be from naturally occurring radioactive material (i.e., not DOE-added material).

[c] Radiological Engineering recommends surveys where significant configuration changes are implemented in the building prior to demolition due to unknowns associated with movement of bulk material or equipment.

[d] The presence of asbestos does not make a facility a Type 2 as long as the asbestos is removed pursuant to the Site's asbestos abatement procedures.

4.2.4 Pre-Demolition Survey

Before facility demolition, a PDS will be conducted to verify the nature and extent of radiological and chemical contamination in the facility. The survey will be conducted in accordance with DDCP. In general, the characterization process will incorporate the following steps:

- The 371/374 Closure Project team will develop characterization packages and take final measurements and samples.
- DOE and the LRA will review the sampling results.
- DOE and/or the LRA will conduct an independent verification (IV) of the characterization data.
- The LRA, at its discretion, will review the results from the IV.
- During the characterization process, the LRA will have access to the facilities to collect samples and measurements, at its discretion.

The PDS is intended to verify that the condition of each survey unit meets the requirements for demolition and disposal as provided in this DOP. The PDS is conducted in accordance with the requirements of the *RFETS Pre-Demolition Survey Plan (PDSP).*[15] The types of data necessary to satisfy the objectives of PDS include total surface contamination measurements, removable surface contamination measurements, and scan data. Given that suspect surface media will be removed during decommissioning, surface media sampling will only be required on a limited basis, g.

Additional information required to design the PDS includes in-process survey data and updated maps to reflect structural alterations. In-process surveys are performed to assess the changing radiological conditions during the course of decommissioning and to confirm that an area is free of gross contamination. In-process survey data will be incorporated into *the PDS Report (PDSR) for the Building 371/374 Closure Project.*

If isolation controls are maintained throughout the duration of the Project, the PDS will not be repeated for Type 1 facilities. Verification surveys will be performed before the unrestricted release of these structures to confirm that radioactive material was not introduced into these areas. Structures such as administrative support trailers, guard stations and trailers, and auxiliary support trailers are included in this category.

Non-radiological contaminants will be addressed at the in-process characterization phase of decommissioning. In general, non-radiological contaminants will have been removed before the PDS begins and very little, if any, additional sampling will be needed. The non-radiological sampling methodology will be documented in the PDSR.

Based upon available information and data, the following sampling plan is recommended to support the PDS for both radiological and non-radiological constituents:

- Building surfaces will be divided into survey units based on the requirements outlined in the PDSP. The types of measurements that will be performed during PDS include total surface contamination, removable surface contamination, and surface scans.
- Surface media samples may also be required on a limited basis.
- An IV survey may be performed on an established percentage of survey units following completion of the PDS. The IV contractor will be selected and funded by the DOE and/or the LRA to ensure independence from Building 371/374 Closure Project personnel.

[15] The RFETS Pre-Demolition Survey Plan is in draft form and currently under-going review and approval by the regulators.

4.3 Dismantlement Sets and Decommissioning Areas

For planning purposes, the Building 371/374 Closure Project has been divided into Dismantlement Sets and Decommissioning Areas. Dismantlement Sets and Decommissioning Areas serve as the foundation for scheduling decommissioning work. Dismantlement Sets consist of small groupings of facility components (e.g., equipment, systems, rooms) containing removable contamination in excess of 2,000 disintegrations per minute (dpm). Decommissioning Areas are comprised of components with removable contamination less than 2,000 dpm.

For the most part, Dismantlement Sets will be decommissioned by Steelworkers, who will remove, size reduce (if necessary), decontaminate (if necessary), and package highly contaminated process equipment, such as tanks and gloveboxes, but leave in place equipment and systems required for worker safety and convenience (e.g., fire suppression and alarm systems, ambient lighting, domestic water, sanitary drains). Decommissioning Areas will be decommissioned by the Building Trades, who will remove, size reduce (if necessary), and decontaminate (if necessary) any equipment, systems, and contaminated building surfaces remaining after the Dismantlement Sets have been decommissioned.

The Dismantlement Sets for the Building 371/374 Closure Project are presented in Table 3. Table 4 cross-references the current Dismantlement Set and Decommissioning Area numbers to the original Set numbers provided in the RLCR. The Decommissioning Areas are described in Table 5. Due to the close proximity of contaminated process piping and ventilation systems to uncontaminated areas of the building, it is anticipated that Steelworker dismantlement activities may occur in any room of Building 371/374. As a result, Dismantlement Sets have been assigned for all internal areas of Building 371/374.

Although the Set descriptions include removal of equipment, piping, conduit, and ventilation systems, there may be instances where a building component remains in place upon completion of decommissioning activities for a particular Dismantlement Set. In such cases, the Dismantlement Set will be considered complete when:

- The component is left in place because it is necessary for worker safety and/or project coordination,
- The component meets the applicable unrestricted release criteria,
- It will be easier to remove the component as part of a Decommissioning Area, or
- There is no advantage to removing the component.

Table 3. Building 371/374 Dismantlement Sets

Set	Description
1	This Set includes Room 4301 and involves the removal and packaging of piping, conduit, and ventilation, as necessary.
2	This Set includes Rooms 4202 and 4303 and involves the removal and packaging of piping, conduit, and ventilation, as necessary.
3	This Set involves Room 3517 and involves the removal and packaging of Gloveboxes 61, 63, and 65; Tanks D-64, D-65, D-132A, D-132B, and D-132C; and Trolley Hoist CV-26. Items internal to these gloveboxes and tanks, and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
4	This Set includes Room 3571 and involves the removal and packaging of Glovebox 66; Tanks D-133, D-150, D-151, D-152A, D-152B; Evaporator-Reboiler E-55; Evaporator Bottoms Cooler E-56; Condenser E-57; and Nitric Acid Feed Heat Exchanger E-62. Items internal to these gloveboxes and tanks, and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
5	This Set includes Room 3573 and involves the removal and packaging of Gloveboxes 64 and 67, and Tanks D-134A, D-134B, D-134C, D-135A, D-135B, D-289A, D-289B, and D-289C. Items internal to the contaminated gloveboxes and tanks, and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
6	This Set includes the Oxide and Residue Tank Vaults (Rooms 3563 and 3559), the Ion Exchange Canyons (Rooms 3553, 3549 and Airlock 3551), the Ion Exchange Valve Maintenance Corridor (Rooms 3543, 3545, 3547, 3555, and 3557), and the Access Corridor (Room 3567). This Set involves the removal and packaging of Gloveboxes 58 and 59; Tanks D-49 A/B, D-50 A/B, D-51 A/B, D-52 A/B, D-55 A/B, D-56, D-57 A/B/C/D, D-61, D-63 A/B, D-63 A/B, D-66 A/B, D-68 A/B, D-69 A/B/C, D-72, D-173 A/B, D-191, D-192, and D-305E; Oxide and Residue Ion Exchange Columns T-4 A/B/C, T-5 A/B/C, T-6 A/B/C/D, T-7 A/B/C/D, T-9 A/B, and T-28 A/B/C; and Downdraft Tables DDT-6 and DDT-9. Items internal to the contaminated downdraft tables, gloveboxes, and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
7	This Set includes Rooms 3301, 3303, 3305, and 3315 and involves the removal and packaging of Gloveboxes 36, 37, 38 and 75; Pumps P-22, P-35, and P-99; 34 pencil tanks; and 4 raschig ring tanks. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and tanks.
8	This Set includes Rooms 3202, 3204, 3206, and 3208 and involves the removal and packaging of Gloveboxes 39, 40, 41, 42, 43, 44, and 45; 31 pencil tanks; 5 raschig ring tanks; and 1 annular tank. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and tanks.
9	This Set consists of the CSV and associated rooms, including Rooms 1204, 1206, 1218, 1216, 1220, 1224, and I/O Stations 1, 2, 3, 4, 5, 6, and 7. This Set involves removal and packaging of the plutonium storage racks, the primary and spare S/Rs, the stacker transfer vehicle, and the repair lift. Items internal to the contaminated I/O stations will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the I/O stations.
10	This Set includes Rooms 1208, 1210, and 2217 and involves the removal and packaging of the storage vault racks (Room 1208), Scrubbers D-230 A/B, and Tank D-715.
11	This Set includes Room 1101 and involves the removal and packaging of the storage vault racks.

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Table 3. Building 371/374 Dismantlement Sets

Set	Description
12	This Set includes Rooms 1103,1105, 1107, 1109, 1111, 1113, 1115, 1117, 1125, 1127, 2319, and 2327, and involves the removal and packaging of Gloveboxes 17, 18, 19, 20, 21, 22, 26, 27, 62, 68, 69, 70, 74, 2410, 2402, 2403, 2404; I/O Station 8; Tanks D-160 A/B/C, D-166, D-229 A/B, D-233 A/B, D-293 A/B, D-312, D-400 A/B/C, D-713, D-2401 A/B/C/D, D-2402 A/B, D-2403; Pencil Tanks D-43 A/B, and D-44 A/B; Pumps P-1 A/B, P-2 A/B, P-3 A/B, P-4 A/B, P-7 A/B, P-15A/B, P-27 A/B, P-70 A/B, P-76 A/B, P-82 A/B, P-83 A/B, P-108 A/B, and P-928 A/B; Scrubbers D-131 A/B, T-1, T-10, T-30, and T-31; and Evaporators E-63 A/B, A1 to A-5 and E-70. Control room equipment, conduit, and instrument systems will be removed as part of this Set. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
13	This Set includes Rooms 2307 and 2317 and involves the removal and packaging of Gloveboxes 76 and 77; Tanks D-67, D-277 A/B, D-292A/B, D-912, D-914, D-916, D-922 A/B, D-933; and Pump P-85A. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and tanks.
14	This Set includes Rooms 2323, 2325, and 2341 and involves the removal and packaging of Gloveboxes 8, 9, 10, 12, 13, 1526, and Tank D-1575. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and tanks.
15	This Set includes Room 2223 and involves the removal and packaging of Tanks D-934 A/B. Items internal to the contaminated tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the tanks.
16	This Set includes Rooms 3511, 3521, 3523, and 3525 and involves the removal and packaging of Glovebox 33; Precipitation Tanks T-11 A/B/C/D, T-12 A/B/C/D, T-13 A/B/C/D; Furnaces F-4 A/B/C/D, F-5 A/B/C/D, F-6 A/B/C/D; Pneumatic Lifts ME-94 A/B/C/D, ME-94 A/B/C/D, ME-95 A/B/C/D, ME-96 A/B/C/D, ME-97 A/B/C/D, ME-98 A/B/C/D, and ME-99 A/B/C/D; Fluorination Tanks T-23 A/B/C/D; Fluorination Pumps C-1A/B; and associated equipment. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
17	This Set includes Rooms 3515 and 3531 and involves the removal and packaging of Glovebox 32; Furnaces F-10 A/B/C, F-16 A/B/C; Pneumatic Lifts ME-23 A/B, and ME-39 A/B/C; Master/Slave Manipulators ME-100 A/B, and ME-169 A/B; Fluorination Pumps C-1A/B; and associated equipment. Items internal to the contaminated gloveboxes and equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.
18	This Set includes Room 3801and involves the removal and packaging of Gloveboxes 111, 112, 106, 108; Tanks D-808, D-812, D-813, D-814, D-815, D-816, D-817, D-818, D-819, D-820, D-821, D-822, D-823, D-826 A/B, D-827, D-878, D-883 A/B, D-884, D-845, and T-807; and Pumps P-810, P-811, P-812, P-817 A/B/C, P-828, P-837, P-838, P-843, P-845, P-846, P-852, P-857, and P-861. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.
19	This Set includes Room 2804 and involves the removal and packaging of Gloveboxes 101 A/B, 102 A/B, 105 A/B, 155 A/B, 119; Tanks D-801 A/B/C, D-802 A/B/C, D-804 A/B/C/D, D-811 A/B, D-824 A/B, D-843, D-852, D-155 A/B; and Pumps 855 A/B/C. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment.

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Table 3. Building 371/374 Dismantlement Sets

Set	Description
21	This Set includes Rooms 4802, 4812, the north portion of Room 3809, and one tank in Room 3801, and involves the removal and packaging of Tanks D-826 C, D-883 A/B, D-884, and D-885; Spray Dryer W-803; Spray Dryer Blowers B-805 A/B; Storage Hoppers H-804 and 805; and the Spray Dryer Bag Filter FL-803. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the tanks and equipment.
22	This Set includes Room 2801, 2802, 2805, and 2808 and involves the removal and packaging of Filter Plenums FP-321 and FP-322; Supply Air Units SAU-301, SAU-302, and SAU-303; Chiller Units 701 A/B; and Pumps 703 A/B/C. Items internal to the filter plenums and external equipment will also be removed. Piping, conduit, and ventilation duct to the plenums and equipment will be removed, as necessary, to facilitate access to the filter plenums and equipment.
23	This Set includes the Americium Processing Tank Vault (Room 3337), Americium Processing Ion Exchange Canyons (Rooms 3327, 3331 and Airlock 3329), the Americium Processing Valve Maintenance Corridor (Rooms 3325, 3333, 3323, 3321, and 3335), and Access Corridor 3341. This Set involves the removal and packaging of Gloveboxes 52 and 54; Tanks D-82 A/B, D-84 A/B, D-86 A/B, D-87, D-88, D-89 A/B, D-90, D-95; Evaporators E-39 A/B, E-40 A/B, E-41 A/B, and E-45 A/B; and Downdraft Tables DDT-11 and DDT-12. Items internal to the gloveboxes, tanks, and equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes, tanks, and equipment
24	This Set includes Room 3408 and involves the removal and packaging of Gloveboxes, 71, 72, and 73. Items internal to these gloveboxes and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.
25	This Set includes Room 3412 and involves the removal and packaging of Gloveboxes 48 A/B/C/D/E/F, 49 A/B/C/D/E/F/G/H, 50 A/B/C/D/E/F/G/H, 51 A/B/C/D/E, and Trolley Hoist CV-9. Items internal to these gloveboxes and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.
26	This Set includes Room 3602 and involves the removal and packaging of Gloveboxes 1, 2, 3 and Chainveyors, CV-27 and CV-62. Items internal to the gloveboxes and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.
29	This Set includes Rooms 3713, 3715, and 3717 and involves the removal and packaging of Gloveboxes 1509, 1510. 1514, 1521 A/B/C, and 1524. Items internal to these gloveboxes and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.
30	This Set includes Room 3701 and involves the removal and packaging of Gloveboxes 1500 A/B, 1502, 1503, 1504, 1506, 1512, 1513, 1516, and 1518. Items internal to these gloveboxes and external equipment will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.
31	This Set includes Room 3541 and involves the removal and packaging of drum storage operations.
32	This Set includes Rooms 3501 and involves the removal and packaging of drum storage operations.
33	This Set includes Room 3513 and involves the removal and packaging of drum storage operations.
34	This Set includes Room 3420 and involves the removal and packaging of drum storage operations.
35	This Set includes Rooms 3606 and 3189 and involves the removal and packaging of drum storage operations.
36	This Set includes Rooms 3709 and 3719 and involves the removal of control room equipment.
38	This Set includes Rooms 2201, 2202, 2202 A/B/C, 2221, 2301, 2304, 2306, and 2316. Piping, conduit, and ventilation duct will be removed, as necessary, to provide support for adjacent Dismantlement Sets.

Table 3. Building 371/374 Dismantlement Sets

Set	Description
39	This Set includes the corridors on the sub-basement level. Items located in the corridor (i.e., external equipment) will also be removed. Piping, conduit, and remaining ventilation ductwork will be removed, as necessary, to provide support for adjacent Dismantlement Sets.
40	This Set includes Room 2203 and involves the removal and packaging of Filter Plenums FP-125 A/B. Items internal to these filter plenums and external equipment will also be removed. Piping, conduit, and ventilation duct to the plenums will be removed, as necessary, to facilitate access to the filter plenums and equipment.
41	This Set includes Room 2213 and involves the removal and packaging of Filter Plenums FP-241 and FP-242. Items internal to these filter plenums and external equipment will also be removed. Piping, conduit, and ventilation duct to the plenums will be removed, as necessary, to facilitate access to the filter plenums and equipment.
46	This Set includes Room 2207 and involves the removal of control equipment for ventilation and health physics vacuum equipment.
50	This Set includes a portion of Room 2310 and involves the removal and packaging of Filter Plenum FP-141. Items internal to the filter plenum and external equipment will also be removed. Piping, conduit, and ventilation duct to the plenum will be removed, as necessary, to facilitate access to the filter plenum and equipment.
51	This Set includes a portion of Room 2310 and involves the removal and packaging of Filter Plenum FP-142. Items internal to the filter plenum, and external equipment will also be removed. Piping, conduit, and ventilation duct to the plenum will be removed, as necessary, to facilitate access to the filter plenum and equipment.
52	This Set includes a portion of Room 2310 and involves the removal and packaging of Filter Plenum FP-243. Items internal to the filter plenum and external equipment will also be removed. Piping, conduit, and ventilation duct to the plenum will be removed, as necessary, to facilitate access to the filter plenum and equipment.
56	This Set includes a portion of Room 3801 and involves the removal and packaging of Gloveboxes 107 and 113 and Tanks D-806 and D-807 A/B. Items internal to the contaminated gloveboxes and tanks will also be removed. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and tanks.
57	This Set includes Rooms 3810, a portion of Room 3809, and Room 4814 and involves the removal and packaging of Vapor Body Tanks T-802, T-803, and T-804; Pumps P-819, P-820, P-821, P-822 A/B, P-823, P-824, P-825, P-840, and P-861; and Heat Exchangers E-804 A/B/C, E-806 A/B, E-807, E-808, E-809, E-810, E-812 A/B, E-817 A/B. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the tanks and equipment.
58	This set includes Rooms 3803 and 4805 and involves the removal and packaging of Gloveboxes 115 A/B and 116 A/B; drum handling equipment and Conveyors CV-808, CV-812, and CV-816; Sludge Dryer W-801; Rotary Drum Filters FL-802 A/B; Vent Gas Scrubber T-807; Heat Exchangers E-804 A/B, E-817 A/B; and Pumps P-806 A/B, P-815 A/B, P-816 A/B, and P-862A/B. Piping, conduit, and ventilation will be removed, as necessary, to facilitate access to the gloveboxes and equipment.

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Table 4. Cross Reference to Set Numbers Presented in the Building 371/374 Reconnaissance Level Characterization Report

Decommissioning Area	Designation	RLCR Set #	RLCR Subset	DOP Dismantlement Set #	Room #	Notes
AL	Attic North	1	A	1	4301	Attic North
AM	Attic South/Chem Make-Up	1	B	2	4202	Attic South
AM	Attic South/Chem Make-Up	1	B	2	4303	Attic South
AH	Main Aqueous Processing	2	A	3	3517	Nitric Acid Recovery
AH	Main Aqueous Processing	2	B	4	3571	Nitric Acid Recovery
AH	Main Aqueous Processing	2	C	5	3573	Secondary Recovery
AH	Main Aqueous Processing	2	D	6	3543	GB Operating Aisle
AH	Main Aqueous Processing	2	D	6	3545	GB Operating Aisle
AH	Main Aqueous Processing	2	D	6	3547	VMC
AH	Main Aqueous Processing	2	D	6	3549	Ion Exchange Canyon
AH	Main Aqueous Processing	2	D	6	3551	Airlock
AH	Main Aqueous Processing	2	D	6	3553	Ion Exchange Canyon
AH	Main Aqueous Processing	2	D	6	3555	VMC
AH	Main Aqueous Processing	2	D	6	3557	GB Operating Aisle
AH	Main Aqueous Processing	2	D	6	3559	Oxide Tank Vault
AH	Main Aqueous Processing	2	D	6	3561	
AH	Main Aqueous Processing	2	D	6	3563	Residue Tank Vault
AJ	Americium Processing/SGS	3	A	7	3303	Vault
AJ	Americium Processing/SGS	3	A	7	3305	SGS Counting
AK	Wet Residue/SS&C	3	B	8	3204	Wet Residue Samp/Repack
AK	Wet Residue/SS&C	3	B	8	3206	Wet Residue Samp/Repack
AC	Central Storage Vault	4	A	9	1204	CSV Area
AC	Central Storage Vault	4	A	9	1206	CSV Area
AC	Central Storage Vault	4	A	9	1214	CSV Area
AC	Central Storage Vault	4	A	9	1216	CSV Area
AC	Central Storage Vault	4	A	9	1218	CSV Area
AC	Central Storage Vault	4	A	9	1220	CSV Area
AC	Central Storage Vault	4	A	9	1224	CSV Area
AA	East Side--CWTS	4	B	10	1208	Storage Vault
AA	East Side--CWTS	4	B	10	1210	Scrubbers
AA	East Side--CWTS	4	B	10	2217	Scrubbers
AB	West Side CWTS	4	C	11	1101	Storage Vault
AB	West Side CWTS	4	D	12	1103	CWTS
AB	West Side CWTS	4	D	12	1105	CWTS
AA	East Side--CWTS	4	D	12	1107	Pencil Tanks
AA	East Side--CWTS	4	D	12	1109	Pencil Tanks
AA	East Side--CWTS	4	D	12	1111	CWTS
AA	East Side--CWTS	4	D	12	1113	Control Room
AA	East Side--CWTS	4	D	12	1115	CWTS
AA	East Side--CWTS	4	D	12	1117	Incinerator/Scrubber
AA	East Side--CWTS	4	D	12	1125	CWTS
AA	East Side--CWTS	4	D	12	1127	Crit Tank Pit

Table 4. Cross Reference to Set Numbers Presented in the Building 371/374 Reconnaissance Level Characterization Report

Decommissioning Area	Designation	RLCR Set #	RLCR Subset	DOP Dismantlement Set #	Room #	Notes
AA	East Side--CWTS	4	D	12	2327	Incinerator/Scrubber
AE	North Side-Basement	5	A	13	2307	
AE	North Side-Basement	5	A	13	2317	
AB	West Side CWTS	5	A	13	2319	
AD	South Side-Basement	5	B	14	2323	
AD	South Side-Basement	5	B	14	2325	
AD	South Side-Basement	5	B	14	2341	
AD	South Side-Basement	5	C	15	2223	Crit Tanks
AH	Main Aqueous Processing	6	A	16	3511	GB-33
AH	Main Aqueous Processing	6	A	16	3521	Precipitation/Calcination
AH	Main Aqueous Processing	6	A	16	3523	Fluorination
AH	Main Aqueous Processing	6	A	16	3525	Precipitation/Calcination
AH	Main Aqueous Processing	6	A	16	3529	Airlock
AH	Main Aqueous Processing	6	B	17	3515	GB-32
AH	Main Aqueous Processing	6	B	17	3531	Reduction
AN	Waste Processing - B374	7	A	18, 21, & 56	3801	
AN	Waste Processing - B374	7	A	58	3803	
AN	Waste Processing - B374	7	A	57	3810	
AN	Waste Processing - B374	7	B	19	2804	
AN	Waste Processing - B374	7	D	58	4805	
AN	Waste Processing - B374	7	D	21	4812	
AN	Waste Processing - B374	7	D	57	4814	
AN	Waste Processing - B374	7	E	22	2801	
AN	Waste Processing - B374	7	E	22	2805	
AN	Waste Processing - B374	7	E	22	2808	
AJ	Americium Processing/SGS	8	A	23	3325	VMC
AJ	Americium Processing/SGS	8	A	23	3327	Ion Exchange Canyon
AJ	Americium Processing/SGS	8	A	23	3329	Ion Exchange Canyon
AJ	Americium Processing/SGS	8	A	23	3331	Ion Exchange Canyon
AJ	Americium Processing/SGS	8	A	23	3333	VMC
AJ	Americium Processing/SGS	8	A	23	3335	Glovebox Operating Aisle
AJ	Americium Processing/SGS	8	A	23	3337	Americium Vault
AK	Wet Residue/SS&C	8	B	24	3408	Analytical lab
AK	Wet Residue/SS&C	8	C	25	3412	Analytical lab
AG	Wet Combustibles/PuSPS	8	D	26	3602	Salts and SS&C
AG	Wet Combustibles/PuSPS	10	A	29	3713	PuSPS
AG	Wet Combustibles/PuSPS	10	A	29	3715	PuSPS
AG	Wet Combustibles/PuSPS	10	A	29	3717	PuSPS
AG	Wet Combustibles/PuSPS	10	B	30	3701	Wet Combustibles
AJ	Americium Processing/SGS	11	A	31	3541	Drum Storage
AJ	Americium Processing/SGS	11	B	32	3501	Drum Storage
AJ	Americium Processing/SGS	11	C	33	3513	Drum Storage
AK	Wet Residue/SS&C	11	D	34	3420	TGS

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Table 4. Cross Reference to Set Numbers Presented in the Building 371/374 Reconnaissance Level Characterization Report

Decommissioning Area	Designation	RLCR Set #	RLCR Subset	DOP Dismantlement Set #	Room #	Notes
AG	Wet Combustibles/PuSPS	11	E	35	3189	Drum Storage
AG	Wet Combustibles/PuSPS	11	E	35	3606	Drum Storage
AG	Wet Combustibles/PuSPS	11	F	36	3709	Control Room
AE	North Side-Basement	12	B	38	2014	Corridor
AE	North Side-Basement	12	B	38	2221	
AE	North Side-Basement	12	B	38	2202 A/B/C	
AA	East Side--CWTS	12	C	39	1006	Corridor
AD	South Side-Basement	13	A	40	2203	FP-125A/B
AD	South Side-Basement	13	B	41	2213	FP-241/242
AD	South Side-Basement	13	C	38	2202	FP-221A/B
AD	South Side-Basement	13	D	38	2202	FP-222A/B
AD	South Side-Basement	13	E	38	2202	FP-223A/B
AD	South Side-Basement	13	F	38	2202	SAU-201/202/203
AD	South Side-Basement	13	G	46	2207	
AD	South Side-Basement	13	H	38	2201	ELEC ROOM
AE	North Side-Basement	13	J	38	2306	FP-121A/B
AE	North Side-Basement	13	K	38	2306	FP-122
AE	North Side-Basement	13	L	50	2310	FP-141
AE	North Side-Basement	13	M	51	2310	FP-142
AE	North Side-Basement	13	N	52	2310	FP-243
AE	North Side-Basement	13	P	38	2301	SAU-101/102/103
AE	North Side-Basement	13	Q	38	2304	ELEC ROOM
AE	North Side-Basement	13	R	38	2316	
AQ	Outbuildings/Trailers	14	A			
AQ	Outbuildings/Trailers	15				
AQ	Outbuildings/Trailers	16				

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Table 5. Building 371/374 Decommissioning Areas

Area	Area Description
AA	This Area consists of portions of the CWTS systems and includes removal of any remaining piping, electrical, and ventilation systems in sub-basement Rooms 1208 (storage vault), 1210, 1214, 1216, 1218, 1222, 1109, 1111, 1113, 1115, 1117, and basement incinerator vent scrubber canyon, Room 2327. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surface decontamination (e.g., scabbling) will remove contamination. Room 1127 area contains surface areas associated with the criticality tank pit. Included are sub-basement corridor Rooms 1001 through 1005, 1121, 1121A, 1123, 1124, and surface areas of the decontamination storage tank pit.
AB	This Area consists of portions of the CWTS system and includes removal of remaining piping, electrical, and ventilation systems in sub-basement Rooms 1101(storage vault), 1103, and 1105, and basement Room 2319. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surface decontamination (e.g., scabbling) will remove contamination
AC	This Area consists of the CSV, repair bay and maintenance area, and I/O Stations #1 through #8 and includes removal of remaining piping, electrical, and ventilation systems in sub-basement vault Rooms 1206 (central storage vault), 1220 (stacker/retriever transfer bay), 1218 (repair bay), and 1224 (maintenance bay). Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surface decontamination (e.g., scabbling) will remove contamination
AD	This Area includes removal of remaining piping, electrical systems, and System #2 ventilation systems in basement Rooms 2201, 2203 2205, 2207, 2213, 2221, 2011, and 2325. Temporary ventilation systems will be installed to facilitate decontamination activities after filter plenum removal has been completed under the Dismantlement Sets.
AE	This Area includes removal of remaining piping, electrical systems, and System #1 ventilation systems in basement Rooms 2306, 2310, 2301, 2307, 2317, 2316, 2015, and 2016. Temporary ventilation systems will be installed to facilitate decontamination activities after filter plenum removal has been completed under the Dismantlement Sets.
AF	This Area includes removal of remaining piping, electrical systems, and System #4 ventilation systems in basement office areas including Rooms 2101, 2103, 2102, 2107, and remaining administrative areas. In-process characterization will confirm radiological status and decontamination activities are not expected to be required.
AG	This Area includes removal of remaining piping, electrical, and System #1 ventilation systems in ground floor Rooms 3701, 3713 and 3717 (removed incinerators and afterburners for high and low specific activity wastes, now PuSPS), 3189, 3606, 3602, and corridor Room 3031B. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surface decontamination (e.g., scabbling) will remove contamination.
AH	This Area consists of the main aqueous processing area and includes the ion exchange, fluorination and precipitator canyons, and includes removal of remaining piping, electrical, and ventilation systems in ground floor Rooms 3559, 3563 (ion exchange tank vault), 3553 (on exchange canyon), 3549, and support Rooms 3545, 3543, 3557, 3521, 3531 (canyons), and support Rooms 3529, 3511, 3515, and 3523. Also included in this Area are Rooms 3517 and 3571 (nitric acid recovery), and 3573 (secondary nitric acid recovery). Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surface decontamination (e.g., scabbling) will remove contamination.

Table 5. Building 371/374 Decommissioning Areas

Area	Area Description
AJ	This Area includes the americium canyons, and anion exchange canyon. Remaining piping, electrical, and System #1 ventilation systems in ground floor Rooms 3337, 3331, 3327 (canyons), and support Rooms 3321, 3325, 3333, 3335, 3513, 3501, 3301, 3303, 3305, 3315, and corridor Rooms 3035 and 3031A will be removed. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surface decontamination (e.g., scabbling) will remove contamination.
AK	This Area consists of the residue sampling and wet repack area, and includes the removal of remaining piping, electrical, and ventilation systems in ground floor Rooms 3202, 3204, 3206, 3208, 3408, 3412, and 3420. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surfaces will be decontaminated (e.g., scabbling).
AL	This Area includes removal of remaining piping, electrical, and System #1 ventilation systems in attic Rooms 4001, 4301, 4305, 4303, and 4307. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surfaces will be decontaminated (e.g., scabbling).
AM	This Area consists of the Chemical Make-Up Area and includes the removal of remaining piping, electrical, and System #2 ventilation systems in attic Rooms 4202, 3189, 4101, 4102, 4103, 4104, 4105, and 4106. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surfaces will be decontaminated (e.g., scabbling).
AN	This area consists of Building 374, the Liquid Waste Process Treatment Building. Piping, electrical, and ventilation systems remaining after dismantlement will be removed. Interior surfaces will have paint removed to facilitate PDS. In-process characterization will identify areas of surficial contamination, and surfaces will be decontaminated (e.g., scabbling).
AP	This Area consists of remaining office and support areas, maintenance, and cold laboratories in Building 371, and includes the removal of remaining piping, electrical, and ventilation systems in office areas. In-process characterization will confirm radiological status and decontamination activities are not expected to be required.
AQ	This Area consists of remaining exterior surfaces (walls and roofs) of Buildings 371/374 and 12 structures/trailers (identified as 371A-K, 376A, 377, 378, Building 373 (cooling tower), and the carpenters shop), and includes the removal of remaining exterior surface-mounted electrical and clean piping systems to facilitate PDS. In-process characterization will confirm radiological status and decontamination activities are not expected to be required. Demolition of Building 371/374 will occur at the close of structural decontamination activities, and the completion of PDS, and included within this Area.

The sequencing of decommissioning activities is identified in the Building 371/374 Closure Project Schedule, discussed in Section 9.0 of this DOP. As shown on the schedule, decommissioning activities may be ongoing in two or more Dismantlement Sets and Decommissioning Areas at the same time.

4.4 Facility Component Removal, Size Reduction, and Decontamination

The *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* describes the techniques and controls that will be used to perform these activities in the Type 3 and Type 2 facilities at RFETS. The following paragraphs describe the specific activities associated with the Building 371/374 Closure Project. In some instances, the sequences of activities and methods are specified. The information contained in this section is based on the current planning baseline. The actual sequence and selected methods may differ from what is indicated; however, as long as the activity remains within the scope of the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*, and consistent with RFCA and the DPP, this DOP will not be modified.

Throughout this section of the DOP, statements are made regarding the waste types that will be generated from component removal, size reduction, and decontamination activities. These statements are based on process knowledge and are provided for information only. All wastes generated during decommissioning will be characterized and managed in accordance with applicable waste management procedures described in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*.

4.4.1 Removal of Ventilation and Filtration Systems

The primary ventilation systems for the processing areas of Building 371 consist of six supply-air handling units and 16 exhaust filter plenums. Two filter plenums (FP-125A and FP-125B) are dedicated to re-circulation and filtration of the inert atmosphere used in the CSV and in/out (I/O) stations. Five four-stage filter plenums (FP-141, FP-142, FP-241, FP-242, and FP-243) are dedicated to Zones I and IA ventilation. Six two-stage filter plenums (FP-121A, FP-121B, FP-221A, FP-221B, FP-222A, and FP-222B) are dedicated to Zone II ventilation, and three two-stage filter plenums (FP-122, FP-223A, and FP-223B) are dedicated to Zone III ventilation. Two-stage filtration of building ventilation is normally conducted in a re-circulation configuration.

The building ventilation zones are defined as follows:

- Zone I provides ventilation for primary confinement where highly radioactive material is handled. Zone I is maintained at the lowest pressure for gloveboxes, canyons, and conveyor enclosures.
- Zone IA provides the ventilation for primary confinement in vaults and open enclosures (i.e, hoods and downdraft tables).
- Zone II provides ventilation supply and exhaust for the secondary confinement. Zone II includes any areas containing Zone I and Zone IA equipment.
- Zone III provides ventilation for tertiary confinement in the building. Zone III areas are generally not contaminated.
- Zone IV provides ventilation for administrative areas and other uncontaminated areas.

System #1, a primary system, ventilates the north sections of the building. System #2, a primary system, ventilates the south sections of the building, and the inert system, which ventilates the CSV and the I/O stations. Systems #1 and #2 each contain four ventilation "zones." System #3 ventilates portions of the east office areas of the ground floor, the stairwell, and elevator areas. System #4 ventilates the east office areas in the basement level. System #5 ventilates the north and east ground floor office areas. System #6 ventilates the south section of ground floor area outside the material access area (MAA) containing the emergency generator and building electrical switch gear. The miscellaneous support system ventilates

portions of the east office areas (Room 3185) on the ground floor, and portions of the Chemical Make-Up Area in the attic.

As facility components are removed and/or decontaminated, workers will complete the removal of remaining utilities, including building ventilation and exhaust filtration systems. Although the approach may differ on an area-by-area basis, the removal sequence will generally proceed as described below.

1) Airflow studies will be performed in accordance with the *RFETS Radiological Safety Practices Manual* to determine feasibility of dismantlement and decontamination activities, and identify potential problems and options.
2) Zone I and Zone IA plenums will be maintained until tanks, gloveboxes, downdraft tables, canyons, and ductwork have been stripped out.
3) Glovebox removal will be initiated at the glovebox furthest away from the plenum and work will continue toward the plenum to ensure that adequate air continues to flow from areas of least contamination to areas of higher contamination. Depending on access restrictions, there may be exceptions to this rule.
4) Airflow studies will continue throughout glovebox, tank, and downdraft table removal to ensure zones are balanced and negative pressure is maintained in accordance with the Building 371/374 BIO. Airflow will be balanced using Zones II and III systems and/or temporary ventilation and filtration systems.
5) Once Zone I and Zone IA tanks, gloveboxes, downdraft tables, and ductwork have been removed, the building areas serviced by that ventilation system may be decontaminated to meet the applicable unrestricted release criteria.
6) Plenums and associated ductwork will be removed.
7) Airflow will be balanced, if necessary, using temporary ventilation and filtration systems.
8) Surface contamination will be measured for Zone II and Zone III systems to determine feasibility of unrestricted release.

A fixative coating will be applied to selected ductwork surfaces to reduce the spread of contamination during ductwork disassembly and movement. The application of fixative coatings will require that ventilation be reduced or terminated in the selected ductwork. Reduction or termination of ventilation may affect or eliminate room and building work activities. Building differential pressures will be monitored to assure building balance and negative pressures are maintained following any reduction or termination of ventilation. Depending on levels of contamination, containments may need to be constructed for dismantlement activities. It is assumed that the use of containments will be minimal for Zone I and Zone IA, and will not be required for Zones II and III. This assumption is based on the successful use of fixatives.

As there are two separate ventilation systems in the processing areas of Building 371, an engineering study will be conducted to determine the most effective sequencing for de-energizing and dismantling the ventilation systems. This will provide information for maintenance of adequate building differential pressures and airflow during dismantlement and decontamination activities. The study will detail methods and procedures, and will incorporate the decommissioning schedule into airflow calculations.

Following application of the fixative and re-initiation of complete or reduced system airflow, rigging will be installed to hold and lower the disassembled ductwork. A containment tent or sleeve will be placed around the areas where ductwork will be separated to reduce the spread of contamination. Complete or reduced ventilation system flow will be used to reduce the spread of contamination during ductwork separation. Mechanical cutting techniques and standard disassembly techniques (e.g., unbolting ductwork

connections) will be used to disassemble ductwork sections. Open sections of removed ductwork will be sealed with plastic wrap and tape in preparation for transport to a size reduction facility. Open ductwork remaining connected to the ventilation system will be configured (e.g., blanked, capped, valved, or a HEPA filter will be installed in the opening) to support maintenance of negative pressure in the room or area and the building.

Penetrations through the floors for Zone I and Zone IA ventilation systems will be removed using concrete removal technologies (e.g., breaking, cutting, or coring methods). Penetrations will be removed before structural decontamination activities. Removal of the ventilation system scrubbers will require flushing and isolation prior to dismantlement of ventilation systems.

Ventilation system plenums may be disassembled just before building demolition activities. Plenums supporting a specific room or area of the building will not be removed until radioactive material holdup or contamination levels of the equipment or structure and corresponding ductwork are below safety analysis and/or radiation protection thresholds indicated in the Building 371/374 BIO.

Plenums will not be disassembled until all connecting ductwork has been removed to the filter plenum intake. Plenum disassembly is initiated by removing the primary stages of high efficiency particulate air (HEPA) filtration. Filters will be packaged in appropriate waste containers. Following primary filter removal, any ductwork openings will be sealed, unnecessary plenum interfaces (e.g., electrical, instrumentation) will be removed and sealed, and exhaust fans will be shut down. Temporary HEPA-filtered ventilation will be installed downstream, and the final stage of HEPA filters removed and packaged for disposal. Where appropriate, non-contaminated stages of the plenums will be separated from the contaminated sections.

Loose contamination in the plenums will be removed using wet wiping techniques. Depending on the situation, strippable coatings may be used to reduce contamination levels of the plenum surfaces. Application of fixatives or strippable coatings to plenum surfaces will reduce the spread of contamination during plenum disassembly.

Following the application of the fixatives or coatings, radiological surveys will be performed and all remaining plenum interfaces will be removed. Mechanical cutting techniques and/or plasma cutting techniques may be used to disassemble and size reduce the plenum for packaging in appropriate waste containers.

Building 374 contains dedicated ventilation systems. Removal will be accomplished in the same manner as the systems servicing Building 371. The primary ventilation systems for the waste processing area of Building 374 consist of three supply-air handling units, and three filter plenums, and two filter plenums (FP-322A and FP-322B) are dedicated to Zone I, two-stage HEPA filtration of tanks, equipment and areas within Building 374. One two-stage filter plenum (FP-321) is dedicated to Zone II exhaust ventilation.

4.4.2 Removal of the CSV and I/O Stations

The CSV in Building 371 is a room measuring 300 feet by 15 feet by 40 feet, with one-foot thick reinforced concrete walls. The CSV contains storage racks constructed of 4-inch by 4-inch steel channel frame designed to hold the 4-foot by 4-foot aluminum and stainless steel pallets, which are used to store and transport solid nuclear materials between gloveboxes within Building 371. The S/R is a computer-controlled remote mobile lifting mechanism, which moves the pallets between storage locations and I/O stations. The I/O stations are gloveboxes extending through the vault walls, up through the first floor, providing direct access to process gloveboxes, without bag-in or bag-out. The I/O stations contain hydraulic lifters. Additional rooms within the CSV are used as a repair bay, as an open area to allow the S/R to be moved between rooms, and as a storage area for the spare S/R. The CSV and I/O stations are serviced by recycled, inert (i.e., nitrogen), Zone 1 (i.e., glovebox) atmosphere.

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During deactivation, the storage pallets and maintenance pallets will be removed from the CSV and adjacent areas and equipment will be prepared to support dismantlement and decontamination activities. Decommissioning will proceed using the following general approach:

- Dismantle primary and spare S/Rs.
- Re-configure CSV ventilation and de-inert nitrogen atmosphere.
- Fog CSV to fix loose contamination.
- Survey and scan CSV and storage systems.
- Vacuum pockets of contamination to alleviate airborne incidents.
- Remove storage rack and dismantle I/O stations.
- Dismantle transfer vehicle and repair lifts.
- Decontaminate CSV structure.
- Perform required surveys.

SNM remaining in the CSV are residues that will be removed and processed or repackaged for off-Site shipment during facility deactivation. During decommissioning, empty storage pallets (i.e., approximately 1,200 pallets) will be removed through I/O Station #8 and its associated glovebox line in Room 1111 of the sub-basement. A single storage pallet will be moved into I/O Station #8 at one time, using the existing S/R. Water will be removed from each of four double-walled stainless steel storage cans riveted to the aluminum base plate using vacuum. The water, which served as radiation shielding, will be piped directly to the Caustic Waste Treatment System (CWTS) for processing. The pallets will then be cut into pieces using a rail-mounted circular saw and the pallet pieces will be transferred into the glovebox line, where the storage containers will be removed from the aluminum base plate, using an air-operated chisel. Both the storage containers and the aluminum pieces will be decontaminated using either wet wiping or strippable coating to prepare them for off-Site disposal. The storage containers will be packaged as LLM waste, due to the presence of lead shielding inside the double-walled containers. The aluminum pieces will be packaged as LL waste.

When the inventory of storage pallets has been removed, I/O Station #8 will be modified to allow for removal of the approximately 200 maintenance pallets presently in the CSV. Maintenance pallets are aluminum base plates fitted with a stainless steel dish that holds contaminated tools, process system parts, and excess SNM storage cans. The material stored in each maintenance pallet will be moved into the glovebox line for packaging as TRU waste. Excess SNM storage cans will be crushed prior to packaging. A router, or similar mechanical cutting tool capable of cutting both aluminum and stainless steel simultaneously, will be used to size reduce the maintenance pallets. The maintenance pallets will then be cut into pieces, decontaminated, and packaged for off-Site disposal. Concurrent with removal of the storage pallets from the CSV, Room 1214, located in the sub-basement of Building 371, will be configured for contained access to the repair bay. This room will be used to package materials and waste from the repair bay. Appropriate containment will be provided to allow for transfer of materials and waste through the floor hatch in Room 1218.

Next, storage racks will be surveyed and removed. To accomplish this task, a man-lift or similar device will be installed in the storage area of the CSV to provide for manned access to the storage racks. Following assembly, the man-lift will be covered and moved with the stacker transfer vehicle to the maintenance bay for storage until manned entry can be accomplished. The primary S/R will be moved from the CSV to the repair bay using the stacker transfer vehicle. The repair bay door will be closed to isolate the repair bay from the CSV, and the ventilation for the bay will be reconfigured to support decontamination activities. The primary S/R will be surveyed to determine waste classification. Based on contamination surveys results, some or all of the S/R may be decontaminated to allow disposal as LL

waste or a surface-contaminated object (SCO).[16] Major components of the S/R will be removed from the assembly and packaged for off-Site disposal. The mast, lift platform assembly, and carriage frame assembly will be segmented using plasma arc or other cutting technology, supported by the overhead bridge crane in the maintenance area. Using the overhead bridge crane, the removed materials will be transported through the floor access hatchway of Room 1218, and packaged in Room 1214 as LL waste or SCO. The CSV will be de-inerted and adapters will be installed to provide for the insertion a passive aerosol fog into the east and west sections of the CSV. Ventilation of the CSV will be reduced and the interior of the storage area, S/R transfer bay, and the maintenance bay will be fogged to encapsulate the contaminants on the interior surfaces of the vault and reduce the possibility for airborne contamination. Because the repair bay is isolated from the primary vault and spare S/R, dismantlement can be accomplished concurrent with fogging and initial decontamination operations in the CSV. Manned entry to the CSV will be accomplished in powered air purifying respirators, and any loose items will be removed and packaged for disposal as TRU waste. A durable fixative or coating will be applied to the floor area to encapsulate remaining contaminants. The storage racks and structural surfaces will be surveyed to assure that accountable SNM has been removed, and surveys will be conducted to characterize any remaining areas of contamination. The ability to "re-fog" the room will be maintained during the rack removal and initial decontamination operations.

In an effort to reduce the possibility of re-suspending contamination, the man-lift will be moved from the maintenance bay to the storage area and the rack assemblies will be vacuumed using criticality safe vacuum systems to remove remaining loose materials. This vacuuming operation should remove the identified pockets or bulk material-containing areas of contamination from the storage rack assemblies prior to rack removal. Following this evolution, the man-lift will be returned to the maintenance bay or repair bay, the repair bay door will be closed and sealed, and the CSV will be "re-fogged."

A specially engineered winch system will be installed to facilitate the segmenting and lowering of removed rack assemblies. The winch system will be designed to lower the vertical sections of rack assemblies to the floor in a controlled manner. The racks will be removed as one "ladder section" at a time. The vertical rack assemblies (i.e., ladder sections) will be supported at the top with the winch system. The wall brackets will be cut free using plasma arc or mechanical cutting, the 4-inch by 4-inch vertical masts will be severed six inches below the ceiling, and the masts will be notched within working distance of the floor. The severed section of vertical rack system will then be lowered to the floor from the top, the 4-inch by 4-inch masts will be segmented, and the sections will be laid flat on the floor. Segmentation of the "ladder" sections will then be accomplished at floor level using plasma arc or mechanical cutting methods, and the pieces packaged as TRU waste. Should in-process characterization indicate that removed rack pieces can be decontaminated to LL waste or SCO, they will be decontaminated at floor level prior to waste packaging. Upper and lower pieces of the vertical mast

[16] As discussed in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*, the level of radioactive contamination, glovebox construction, and the presence of hazardous constituents will determine the method selected. The surface contaminated object (SCO) criteria allow some items to be removed and shipped as its own container. SCO is a U.S. Department of Transportation (DOT) category of low-level waste. SCO dispositioning is preferred because of the significant potential for reducing worker exposure levels and work hours required for removal. SCO dispositioning will be used when the following conditions are met:

- The majority of glovebox surfaces must be accessible by surveying equipment to ensure there is no concealed nuclear material inventory or holdup.
- Both fixed and removable radioactive contamination must be below the maximum allowable DOT levels.
- Inherently hazardous constituents must be removed from the exterior and interior of the glovebox, allowing the glovebox itself to be characterized as non-hazardous. Examples of hazardous constituents include leaded glass windows and lead-lined glovebox gloves. For gloveboxes that previously stored characteristic waste only, this will occur once waste residuals have been removed. Gloveboxes previously storing listed wastes will be considered non-hazardous once the "clean debris surface" standard has been met following decontamination.

assembly will be removed prior to proceeding to the next vertical mast assembly. This operation will be completed for each vertical mast section until all storage racks have been removed.

Upon completion of rack size reduction, the I/O stations will be decommissioned in a manner similar to other contaminated gloveboxes. Hydraulic lift stations and transfer vehicles will be decontaminated, (or loose contamination will be "fixed"), dismantled, segmented, and packaged for disposal as TRU waste. I/O stations will be isolated with steel plates mounted at the floor line. The I/O stations will be decontaminated when the CSV is decontaminated.

The stacker transfer vehicle and maintenance repair lift will be removed, segmented, and packaged as LL waste or SCO. The CSV, maintenance bay, and repair bay will be prepared for decontamination. If hydrolasing is the selected method, criticality-safe pumps and collection containers will be installed to collect hydrolasing water. Paint will be removed from upper structural surfaces (i.e., walls and ceilings) using a grit blasting or similar method. Floor areas will be decontaminated using mechanical scarifying equipment. Components embedded in the concrete (e.g., plates, anchors, rails, penetrations) will be removed. Leaded glass windows and maintenance bay glove ports will be removed and the openings covered. Initial surveys will identify surface areas (i.e., floors, walls, or ceilings) requiring further decontamination. Additional decontamination will be performed, as necessary, until surface areas meet the applicable unrestricted release criteria described in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*.

4.4.3 Removal of the Canyons

The term "canyon" refers to the rooms located on the Building 371 side of Building 371/374 that were designed to contain process equipment too large to be placed in gloveboxes. These rooms are serviced by Zone I and Zone 1A ventilation. The canyons include the incinerator scrubber canyon (Rooms 2327, 1117, and 1125), precipitation/calcination canyon (Room 3521), fluorination canyon (Room 3523), reduction canyon (Room 3531), residue ion exchange canyons (Rooms 3549 and 3553), residue ion exchange valve maintenance corridors (Rooms 3547 and 3555), and residue ion exchange tank vaults (Rooms 3559 and 3563). Equivalent canyons are located in the americium processing area (Rooms 3325, 3333, 3327, 3331, and 3337).

During deactivation, SNM will be removed from the canyons, non-actinide liquids will be drained, and loose material and equipment will be removed and packaged as TRU or TRM waste. During decommissioning, the mechanical and process equipment will be decontaminated (if necessary), size reduced, and packaged for disposal as TRU or TRM waste. Work in the canyons will require use of respiratory protection.

Prior to decontamination, mechanical and process equipment will be removed, manually size reduced, and packaged for disposal as TRU or LL waste. Paint will be removed from upper structural surfaces using an abrasive grit blasting or similar method. Floor areas will be decontaminated using strippable coatings and/or mechanical scarifying equipment to remove the top ½-inch of concrete; contamination in cracks will be chased and removed with portable scabblers or needle guns. Water-filled windows will be drained, leaded glass removed, and window openings decontaminated and sealed with steel plates. Piping, mechanical, and electrical penetrations will be cleaned with an abrasive material and the penetrations sealed to prevent re-contamination. Surveys will identify surface areas (i.e., floors, walls, or ceilings) requiring additional decontamination. Additional decontamination will be performed, as necessary, until surface areas meet the applicable unrestricted release criteria.

Based on available information, and with the exception of spills that have occurred in the incinerator scrubber canyon, spills in the canyons have been limited to minor leaks or overflows directly beneath the

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valves or tanks. As these areas have not been exposed to liquids, it is anticipated that concrete interfaces (e.g., construction joints, floor to wall, wall to ceiling) are not contaminated beneath the painted surface layer. To eliminate the potential for migration of contamination through the concrete, only dry decontamination methods will be used in the canyons. Structural surfaces will be decontaminated using abrasive grit to remove paint from the surfaces above the floor level. Floors will be scarified with mechanical equipment to an initial depth of ½-inch. Floors or walls with deep contamination will be identified (as to depth of contaminants), and concrete will be removed during the decontamination process or the areas will be sealed and removed prior to demolition of the structure. The following paragraphs describe the individual canyons and associated hazards.

4.4.3.1 Incinerator Scrubber Canyon

The incinerator scrubber canyon in Rooms 1117, 1127, and 2327 (Dismantlement Set 12), is the lower half of the original canyon that stretched the complete height of the building. The canyon originally housed the scrubbers for off-gas from the incinerators, piping, caustic tanks, and pumps necessary to run the systems. The sub-basement level also contained the acid backwash for the CWTS, used to make the CWTS oxide precipitate acceptable as feed to the ion exchange system on the ground floor.

During facility upgrades in 1987, the incinerators and the top portion of the scrubbers were removed to below the ground level, the areas decontaminated, and a new ground floor poured. The added concrete floor must be removed prior to the demolition of the structure. Room 2327 is moderately contaminated and will be stripped out as LL waste. The sub-basement, separated from the basement by a grating, is more highly contaminated as a result of backwash system leaks. The residual liquids and caustic crystals were cleaned up in the early 1990s, and a painted coating was applied to seal the floor from future leaks. Most of this waste will be LL waste. The ventilation system that draws air from this canyon is the same system that supports the PuSPS system. As a result, decommissioning activities will be carefully coordinated with PuSPS operations.

4.4.3.2 Precipitation/Calcination Canyon

The precipitation/calcination canyon in Room 3521 (Dismantlement Set 16) housed the process system that was used to convert plutonium nitrate solutions into plutonium oxide feed for the fluorinators. The equipment consists of two "carousels," each containing stations and an automatic transportation system for moving the filter boats to Glovebox 33. The stations are located on a seismically-qualified structure attached to the floor. Each station consists of a 6-foot by 4-inch diameter stainless steel pencil tank and a circular, refractory-containing calciner, 2½ feet in diameter and 1½ feet high. Numerous additional liquid and solenoid valves and instrumentation are located on racks in the rooms. The precipitation process proceeded through hot start-up, during which numerous batches of nominal 100 gram per liter plutonium nitrate per 1 molar nitric acid slurries were dumped to the canyon floor. After testing was discontinued, the plutonium oxide was cleaned up, leaving the floor pitted and paint peeled in places. In some localized areas gram-levels of contamination may exist; however, due to the limited period of use, it is anticipated that excessive, widespread penetration of contamination into the concrete is unlikely.

4.4.3.3 Fluorination Canyon

The fluorination canyon in Room 3523 (Dismantlement Set 16) housed the fluorination process that was used for a limited start-up period to process plutonium oxide from in Building 771. Oxide was pneumatically introduced from Glovebox 33 into four fluidized-bed columns in Room 3523. The room also contains the off-gas dust separators, pneumatic piping to the reduction canyon, and various instrumentation. Because of the limited start-up period and the dry nature of the process, the contamination introduced during start-up should not have penetrated the surface paint. Additional

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contamination due to cross-contamination from air flow or tracking of contamination from the more-contaminated precipitator canyon should be readily removable.

4.4.3.4 Reduction Canyon

The reduction canyon in Room 3531 (Dismantlement Set 17) housed the reduction process, which was also used only during start-up. Plutonium fluoride was transferred from the fluorinators to the reduction "carousel," magnesium metal added, the material ignited, metal and slag phases allowed to separate and cool, and the coalesced plutonium metal "button" was removed using manipulators. Final processing and packaging occurred in Glovebox 32. The levels of contamination on structural surfaces should be similar to that of the fluorinator canyon; powdery in nature and with little penetration into the paint. Cross-contamination from airflow or tracking of contamination from the more-contaminated precipitator canyon also may have occurred. Glovebox 32 is currently being used to process residues, which may contribute an additional source of contamination to this canyon.

4.4.3.5 Residue Ion Exchange Canyons

The residue ion exchange canyons in Rooms 3549 and 3553 (Dismantlement Set 6) contained the processes that received liquids from the oxide and residue dissolution lines in Room 2325 via the tanks in Rooms 3563 and 355, purified and concentrated the plutonium nitrate, and prepared the solutions for precipitation in the precipitator canyon. The system was integrated with tanks in the tank vaults, controlled by the valves in the valve maintenance corridors, fed by the pumps and filters in the pump gloveboxes, and supported by the nitric acid recovery process in Rooms 3571 and 3573. The ion exchange canyons extend into the attic space. The equipment consists of numerous columns, pencil tanks, and evaporators hung vertically along the sides of the canyons. During start-up testing, significant liquids were run through the ion exchange columns and evaporators. Historically, there was localized dripping of plutonium nitrate. Liquids have since been drained from the tanks and the resin has been removed from the columns. It is anticipated that contamination consists of localized acid-etched areas on the floor, and some splash areas on the walls.

4.4.3.6 Residue Ion Exchange Valve Maintenance Corridors

The residue ion exchange valve maintenance corridors in Rooms 3547 and 3555 (Dismantlement Set 6) are long, narrow rooms that wrap around the perimeter of the ion exchange canyons, and contain the solenoid valves and other equipment in an environment that was intended to be more benign than that of the ion exchange canyons. The valve maintenance corridors are comprised of two levels: an upper level, extending into the attic that contains reagent valves, and a lower level, containing valves for plutonium nitrate solutions. The outer wall of the valve maintenance corridors consists of the back side of the pump gloveboxes. As a result, removal of the valve maintenance corridors will be carefully coordinated with removal of the pump gloveboxes. Some valves leaked during start-up testing, and there are areas of localized acid etching on the floors and walls. Pump gloveboxes and downdraft tables will be removed first to provide access to the valve maintenance corridors.

4.4.3.7 Residue Ion Exchange Tank Vaults

The residue ion exchange tank vaults in Rooms 3559 and 3563 (Dismantlement Set 6) provided feed storage for the ion exchange process. Solutions originally stored were the liquids from dissolution; however, over the years various solutions of lower plutonium concentrations were added. The tanks contained contaminated acids for more than ten years. Although there is no record of any large spills, leaks from valves and sight glasses contributed to localized, acid-etched contaminated areas. The tanks

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were drained during the actinide draining program in Building 371, completed in FY98. The raschig rings will be removed and decontaminated to SCO or LL waste during building deactivation.

4.4.3.8 Americium Processing Area

The americium processing area in Rooms 3323, 3325, 3327, 3331, 3333, and 3337 (Dismantlement Set 23) was never placed in service. The intended purpose of this process was to purify americium from the molten salt extraction process in Room 3305. The configuration of the canyons in this area is similar to the ion exchange canyons, with tank vaults and valve maintenance corridors surrounding an americium ion exchange canyon. In the early 1990s, the equipment in the tank vault and ion exchange canyons was stripped out and the rooms converted to secured storage vaults to support residue and International Atomic Energy Agency (IAEA)-monitored material storage. The valve maintenance areas and pump gloveboxes remain as installed, and are reported to have become contaminated during ventilation reversals.

4.4.4 Removal of Conveyors, Chainveyors, and Transfer Systems

Building 371/374 is equipped with several types of devices that are used to introduce material into, and transfer material between, systems and processes. These include I/O stations, conveyors, chainveyors, and transfer systems (e.g., pneumatic, vacuum).

Conveyors are electrically-driven devices used to move items along a chain or roller. Chainveyors are used in many gloveboxes to transfer tools, equipment, and plutonium residues for processing or packaging. The chainveyors are rectangular in shape and flanged at each end. The flanges are bolted together to provide an air-tight housing. Typically, the chainveyors are located near the dropped ceiling to minimize operator interference. The chainveyors also serve to direct ventilation flow and maintain containment during material transfer. Lead shielding mounted on the outside of the chainveyors is used to reduce personnel exposure. The Building 371/374 pneumatic transfer system consists of 24 polyethylene lines through which liquid and solid samples and used Fulflo™ filter cartridges were transferred between gloveboxes. The vacuum transfer system consists of 31 polyethylene lines, through which highly radioactive materials were moved between gloveboxes using differential pressure. Two of the vacuum transfer lines also employed argon and nitrogen pressures as the motive force.

During decommissioning, the conveyors, chainveyors, and transfer systems will be disassembled, size reduced (if necessary), decontaminated (if necessary), characterized, and packaged for off-Site disposal as LL waste or SCO. Lead shielding may be removed prior to packaging. The removal sequence will vary from location to location. However, because many of these systems have internal contamination, the opening to each section will be contained (e.g., sealed with plastic and tape) during the removal process and ventilation will be maintained, as necessary, to prevent a release of contamination to the environment.

4.4.5 Size Reduction

Size reduction is the process of reducing equipment to a size compatible with the intended waste container. There are two types of size reduction: central size reduction and in situ size reduction. The major benefits of using central size reduction facilities (CSRFs) over in situ size reduction systems (ISSRs) include a higher level of worker safety through the use of automated tools to reduce manual handling of components; a reduced requirement for personal protective equipment (PPE); and enhanced ventilation and packaging controls, which promote worker safety. An additional benefit is the increased productivity that these facilities have demonstrated in other on-Site applications.

Following are the decision criteria for how a glovebox, tank, section of duct, or piece of equipment should be size reduced and the order in which the decisions will be made:

1) An SCO option will be evaluated and is always preferable for glovebox removal and disposal because it reduces or eliminates the need to size reduce equipment.
2) If the glovebox cannot fit through any door of the room, even with the transom removed, the glovebox (or tank) will be size-reduced in situ by mechanical means.
3) If the glovebox is too big to fit in the elevator and cannot be readily moved to an inner tent demolition chamber (ITDC), then the glovebox will be size reduced by mechanical means.
4) If the ITDC is at capacity, any additional gloveboxes may be sent to an ITDC in another RFETS facility, as schedules permit.

4.4.5.1 Central Size Reduction

Centrally-located size reduction facilities are being installed in Buildings 371, 707, 771, and 776 to disposition gloveboxes, ventilation ductwork, tanks, and other process equipment that cannot be economically decontaminated to SCO and are small enough to be readily disconnected and moved.

Currently, an ITDC (Phase 2-1) is planned for installation in Room 3501 in Building 371. The ITDC consists of an engineered enclosure approximately 25 feet long by 6½ feet wide and 13 feet high. This enclosure will be connected to the building ventilation and utilities systems and operate throughout the decommissioning phase of the Project. The ITDC will accept equipment with maximum dimensions of 14 feet long by 5½ feet wide and 8 feet high for size reduction. The unit has an air lock on the feed side and a standard waste box bagout ring on the discharge end of the unit. Soft-sided containments will support maintenance and operations tasks on both sides of the ITDC. The ITDC uses both automated and manual means to size reduce equipment and is equipped with automated arms with tool handling capabilities and a hoist for material handling and transfer. Manual operations may also be conducted through a series of glove ports using hand held tools. However, this handwork will be minimized to reduce work risks. Generally, waste from the ITDC will be packaged in standard waste boxes through a bag out port and the standard waste boxes will be moved to the loading dock for off-Site shipment.

The overall process to prepare candidate equipment for centralized size reduction involves the following steps.

- The exterior equipment, piping, and tanks are removed from the equipment and the equipment is decontaminated.
- The equipment is characterized and a decision is made on SCO, in situ, or centralized size reduction for disposition.
- Remaining contamination is fixed.
- The equipment is isolated from Zone 1 ventilation and disconnected from utility connections. The equipment is partially dismantled, if necessary, and the legs and other ancillary appurtenances are removed. The equipment is sleeved, wrapped, and moved to the ITDC staging area.

In addition, plutonium-contaminated components from the Building 371/374 Closure Project may be shipped to ITDCs located in Buildings 707, 771, and 776. At this time, it is anticipated the Site will have the capability to transport contaminated components between Buildings 371, 707, 771, and 776 by the end of the third quarter of FY01. Components requiring size reduction will be shipped in DOT-certified Type "A"containers, which include cargo-sized containers.

4.4.5.2 *In Situ Size Reduction*

This section applies to ISSR operations for gloveboxes, ventilation duct, tanks, and other process equipment that cannot be economically decontaminated to SCO and cannot be disconnected or moved, or will not fit into a CSRF. The overall process to prepare candidate equipment for ISSR involves the following general steps:

- The equipment, piping, and tanks are removed from the equipment and the equipment is decontaminated.
- The equipment is characterized and decision is made on SCO, in situ, or centralized size reduction for disposition.
- Contaminated surfaces are fixed.
- Soft-sided containment is designed and erected around the equipment. Soft-sided containments will be connected directly to Zone I or IA ventilation or equipped with self-contained HEPA ventilation systems. Ventilation will be configured to maintain sufficient inward air flow to contain airborne contaminants.
- The necessary tools, equipment, materials and supplies are mobilized along with support services.
- The equipment is isolated from Zone 1 ventilation, disconnected from the equipment and utility connections removed. The equipment is dismantled and other ancillary appurtenances removed and packaged for disposal. The dismantlement operation will include removals, cutting, and other size reduction operations that are necessary to fit the glovebox into appropriate containers.
- Once the equipment is removed, the interior of the soft-sided containment is decontaminated, along with all tools, equipment and materials, or packaged for disposal.
- The equipment is removed and packaged for disposal.

4.4.6 Decontamination

Structural decontamination will involve the removal of residual contamination from the structure, removal of contaminated structural components (e.g., block walls, partitions), removal of remaining utility systems, decontamination of the remaining structure, and the initial confirmatory survey of release status.

The internal areas of the structure will be dismantled based on the schedule for Dismantlement Sets. At the close of the dismantlement activities, the areas will be empty of all gloveboxes, tanks, and systems providing services to gloveboxes and tanks. The Zones I, IA, and II ventilation systems will have been removed to the nearest isolation point, and ACM removal will be complete. However, the electrical systems supplying lighting and distribution will remain in place.

Room or area walls will be used as containment barriers, or temporary containment barriers will be installed to ensure that decontamination activities will be isolated from adjacent areas. Mobile HEPA ventilation will be installed for ventilation in areas undergoing decontamination activities. HEPA ventilation exhausted to the environment will be monitored or exhausted to the remaining building ventilation systems. Dismantlement activities associated with identified Sets will be accomplished prior to dismantlement and decontamination activities associated with the Decommissioning Areas. The decontamination of Building 371/374 structures will be performed in the following general sequence:

1) Remaining electrical systems (conduit, switches, and distribution of electricity) will be removed. Temporary electrical services will be installed, as necessary.

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2) Remaining safety systems will be removed back to the Decommissioning Area boundary, and any necessary modifications performed to replace required safety items.

3) Remaining utility supply systems (water, air, etc.) will be removed to the Decommissioning Area boundary; and temporary services will be installed to support the decontamination activities.

4) Prior to characterization, the interior concrete surfaces in contaminated areas will be cleaned using an abrasive decontamination technique unless sub-surface paint sampling has demonstrated radiological characterization meeting unrestricted release criteria. Removed paint debris will be packaged for disposal as TRU waste.

5) Scaffolding will be installed or personnel man-lifts will be used to access upper walls and ceiling areas, which will be decontaminated first. Concrete ceilings will be decontaminated (as necessary) initial surveys completed, and the decontaminated surfaces covered to prevent re-contamination.

6) Upper and lower walls will be decontaminated, as necessary, and preliminary surveys completed. Scaffolding will be removed to allow decontamination of the floor surfaces.

7) Contaminated floor areas exhibiting penetration of less than one inch will be scabbled to remove contamination. Surface cracks in the floor slabs will be decontaminated with "crack chaser" scabbling equipment.

8) Floor drains and "below-slab" services will be isolated or removed.

9) Areas exhibiting residual contamination following the initial PDS will be physically isolated, decontaminated, and re-surveyed.

10) Waste will be removed from the Decommissioning Area

11) Systems and equipment attached to the exterior surfaces of the structure will be removed, and initial PDS surveys completed.

12) Following decontamination of the exterior structure and removal of remaining asbestos roofing materials, final surveys of the building structure will be completed.

4.5 Facility Demolition

This section contains extensive information on the Building 371/374 Closure Project approach to demolition. In some instances, the sequence of activities and methods are specified. The information contained in this section is based on the current planning basis. The actual sequence and selected methods may differ from what is indicated in this section. As along as the activity remains within the scope of the *RSOP for Facility Disposition* and consistent with RFCA and the DPP, this DOP will not be modified.

Demolition activities will be planned at an appropriate time in the closure process, prior to completion of the PDS. Actual demolition will not proceed until the LRA has concurred with the PDSR and stakeholders have been notified of the demolition schedule and techniques to be used to demolish the facility.

The scope of demolition activities includes the structures, facilities, and appurtenances associated with the 371/374 Closure Project, such as retaining walls, loading docks, pads, temporary structures, and underground utilities and structural features to the edge of the foundations. Sidewalks, fences, and aboveground exterior utilities will be removed on a case-by-base basis and coordinated with the Remediation, IA Decommissioning, and Site Services (RISS) organization. Asphalt roadways and the remaining underground utilities will be addressed under a separate ER decision document. Soils removed

incidental to demolition activities will be managed in accordance with the *RSOP for Asphalt and Soil Management* (when approved).

Facility demolition will be accomplished using a variety of mechanized equipment combined with the engineered and controlled use of explosives. Tracked excavators fitted with quick-change attachments are the preferred piece of equipment, using a variety of hydraulic shears, grapples, thumbs and vibratory demolition hammers to accomplish various demolition needs. A large tracked excavator properly outfitted can be used effectively on most two to three-story demolition applications. Additionally, the detachable tools can be fitted with remote operated fogging water-spray nozzles for dust control purposes. During demolition, airborne dust will be monitored on a visual presence or absence criterion, with dust control water spray being applied as required from a fire hose equipped with a fog nozzle.

Excavators may direct-load debris into disposal containers or trucks, or front-end loaders may be brought in, depending on the haul distance. Should a building structure or system be too tall to demolish with a large excavator, a crane and wrecking ball combination will be mobilized. The general sequence of activities associated with the demolition of the 371/374 Closure Project is as follows:

- Mobilization,
- Demolition site preparation,
- Removal of overhead obstructions,
- Removal of Site features required to execute demolition (paved lots and streets for ease of access, retaining walls, inactive exterior fire system components),
- Demolition of outbuildings and Site features (e.g., cooling towers, trailers, tanks, outbuildings, ASTs),
- Demolition of structures and appurtenances specific to Building 371/374 but independent of the main Building 371 structure. These areas will include the Building 374 structure as well as the Support Facility located along the south side of Building 371 and connecting Building 371 to Building 374, and the Switch House and Switch Yard located along the north side of Building 371, Implosion of the main Building 371/374 structure after using the Building 371 as the containment for ER activities,
- Completion of the main Building 371/374 structure demolition using tracked equipment to remove remnant walls and foundation items to a depth at least 3 feet below adjacent grade,
- Placement of an engineered backfill of the Building 371 footprint,
- Demolition site cleanup, and
- Demobilization.

The demolition sequence is based on technical requirements. However, starting the demolition process on the smaller outbuildings will ensure that the process is refined before the more complicated structures are initiated.

4.5.1 Mobilization

Demolition will begin with the mobilization of the demolition contractor followed by demolition site preparation. A central staging area will be established in an existing improved area, such as the paved area off the northwest corner of Building 371. The decommissioning contractor may mobilize the following items: office trailers, shower facilities, lunchroom, portable toilets, hand wash units, and tool/equipment storage. The existing PA security fence will be incorporated into an overall access control boundary.

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4.5.2 Demolition Site Preparation

As part of demolition site preparation, existing features associated with Site utility systems will be located, marked, and evaluated for isolation purposes. The sanitary sewer system will be isolated to prevent inflow of inappropriate wastewater generated by demolition dust control activities.

Electrical power requirements will be identified as part of the planning process. Maintaining sump and foundation pumps for control of groundwater, power to sanitary sewer lift stations, and some area lighting will be necessary. However, it is likely that all power fed from the main distribution substation located on the east side of Building 371/374 will eventually be terminated and decommissioning activities will be supported by temporary power.

Protective barriers or fences will be erected around permanent Site features designated to remain during demolition and ER. Electrical distribution switch gear, overhead electrical distribution lines, area lighting, and fire protection system hydrants and post indicator valves that will remain operational during and/or after the demolition will be protected as required, and flagged for added operator awareness and overall visibility.

As necessary, run-on and run-off control features will be implemented; temporary diversion berms, erosion control silt fencing and interceptor ditches will be installed; and existing drainage culverts and ditches will be cleaned out as required to divert significant overland flow away from the demolition site. The installation of run-on/run-off control features will be coordinated with Environmental Systems and Stewardship personnel responsible for the surface water monitoring system surrounding the demolition site.

Traffic patterns and specific loading areas for waste management will be established, as will temporary stockpile areas for debris. For any backfill material that will be stockpiled for a long period of time, a more permanent area will be created that will encompass additional erosion or run-on/run-off controls as necessary. The location of any long-term backfill stockpile area will be coordinated with the ER Project. Finally, any known contaminated surficial soils in the areas immediately adjacent to planned demolition activities will be delineated and controlled by ER personnel.

4.5.3 Removal of Site Features

Initial demolition activities will also involve stripping remnant equipment, rooftop entry/landing deterrent systems, ventilation stacks, filter housings, and other miscellaneous materials from rooftops. The removal of overhead obstructions will reduce the possibility of equipment coming in contact with energized electrical lines, and will allow access for operating cranes and long-reach tracked excavators. The removal of remnant equipment is required early in the process to free up the roof system for removal of potential ACM in the membrane of structures with older, multiple fiber-ply, built-up roofing systems.

4.5.4 Removal of the Type 2 Aboveground Storage Tanks

Tank T-167, Nitric Acid Storage (a.k.a. Tank D-222), is one of three additive storage tanks located within a concrete-lined secondary containment approximately 100 feet north of Building 371 and 40 feet due west of the secondary containment tank pool. It is a vertically-oriented cylindrical tank constructed of stainless steel, approximately 10 feet in diameter by 16 feet tall. It is mounted on a carbon steel platform, and includes associated miscellaneous electrical controls, pump equipment, and transfer lines. There is also a steel-framed overhead material transfer pipe rack that connects the tank to the north wall of Building 374. This rack supports transfer of nitric acid from this tank, as well as caustic reagent from two adjacent storage tanks, and includes light-steel support towers with cast-in-place concrete bases.

The tank will be drained of residual acid. The paint coating of the tank base will be evaluated for notification purposes to off-Site recycling agents for the presence of lead-based paint. The tank will be declared operationally empty and an interior inspection will be performed. It is expected that no residues or solids will be found within the tank. The tank will be steam-cleaned to address any RCRA waste code issues. This steam cleaning will also be accomplished for the transfer lines associated with this tank's operational history.

With the tank empty and lead-based paint issues addressed, the tank will be detached from the overhead rack and lifted intact onto a suitable flatbed or low-boy trailer, and then transferred off Site for recycling. The carbon steel platform, overhead pipe rack and supporting structure, and associated acid transfer piping will also be transferred off Site for recycling. All electrical and mechanical support equipment will be disposed as items suitable for recycle, or as scrap. Insulating materials, along with other incidental non-recyclable items, will be disposed as solid waste at a permitted off-Site sanitary landfill.

Once the additional two additive storage tanks have been removed, the concrete containment will be demolished. The resulting concrete rubble will be removed for recycling. All underground utilities in the area will be cut and capped within the remnant containment footprint, and the depression will be backfilled and graded to match immediately adjacent elevations and conditions.

Tanks T-168 and T-169, Potassium Hydroxide Storage (a.k.a. Tanks D-225 and D-842), are the two remaining additive storage tanks located within the concrete-lined secondary containment described above for Tank T-167. They are vertically-oriented cylindrical tanks constructed of stainless steel. Tank T-168 is approximately 10 feet in diameter by 20 feet tall, and Tank T-169 is approximately 10 feet in diameter by 16 feet tall. It is likely that the design for these tanks also included the use of an interior heating coil. The tanks are mounted on painted carbon-steel platforms, and include associated miscellaneous electrical controls, pump equipment, and transfer lines. These two tanks share the overhead transfer line rack described above for Tank T-167.

The tanks will be declared operationally empty and an interior inspection will be performed. It is anticipated that some water-soluble dry residue remains in the bottoms of the tanks and on interior surfaces. These residuals will be mobilized by adding hot water then removed, containerized, and transferred for treatment, storage and disposal. The tanks and associated piping will be steam-cleaned to address any RCRA waste code issues.

The paint coating on the tank platforms will be evaluated for notification purposes to off-Site recycling agents for the presence of lead-based paint. With the tank empty and lead-based paint issues addressed, the tank will be detached from the overhead rack and lifted intact onto a suitable flatbed or low-boy trailer, and then transferred off Site for recycling purposes. The carbon steel platform, overhead pipe rack and supporting structure, and associated acid transfer piping will also be transferred off Site for recycling at this time. Electrical and mechanical support equipment will be disposed as items suitable for recycle, or as scrap. Insulating materials, along with other incidental non-recyclable items, will be disposed as solid waste at a permitted sanitary landfill.

Tanks T-224 through T-227, Water and Sodium Hydroxide Storage, are non-process tanks located on the north wall of Building 371, due east of the breathing air compressor station. The tanks are mounted on the second floor of a two-story steel framework that is supported on cast-in-place concrete piers. Tanks T-224 through T-226 are the most western of the four tanks, are carbon-steel tanks used to store process water, and are approximately 6 feet in diameter by 9 feet tall. Tank T-227 is the most easterly of the four tanks, is a carbon-steel tank for storage of caustic reagent, and is approximately 8 feet in diameter by 20 feet tall. All of these tanks are insulated with fiberglass materials and covered with stainless steel jacketing.

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The tanks will be declared operationally empty and an interior inspection will be performed. It is anticipated that some water-soluble dry residue remains in the bottoms of the tanks and on interior surfaces. These residuals will be mobilized by adding hot water then removed, containerized, and transferred for treatment, storage and disposal. The tanks and associated piping will be steam-cleaned to address any RCRA waste code issues. This rinsate will be containerized, and transferred for treatment, storage and disposal. It is expected that Tank T-227 will require no interior treatment.

All piping, electrical conduit, controls and instrumentation will be removed for disposition as recyclable, or for scrap. Tanks will also be stripped of insulation systems. The tanks will be detached from the overhead rack and lifted intact onto a suitable flatbed or low-boy trailer, and then transferred off Site for recycling purposes. The steel framework and any remaining transfer piping will also be transferred off Site for recycling at this time. All remaining electrical and mechanical support equipment will be disposed as items suitable for recycle, or as scrap. Insulating materials, along with other incidental non-recyclable items, will be disposed as solid waste at a permitted off-Site sanitary landfill.

The concrete pads will be removed for recycling. Underground utilities in the area will be cut and capped within the concrete pad footprint, and the depressions will be backfilled and graded to match immediately adjacent elevations and conditions.

Tank T-228 (a.k.a. Tank W-803) is a spray dryer used to dry the vapor stream issued from T-805, 4th effect vapor body, through the D-878 spray dryer feed tank. It is located outside Building 374, due north of Room 3809, mounted on a two-story steel frame structure. It is a carbon steel tank and hopper arrangement with the straight side upper portion being 16 feet in diameter by 6 feet tall, with an overall height of 26 feet. It is painted black. The straight side portion is housed in a penthouse on the second story of the steel framed support structure, sided and roofed with corrugated transite (ACM) panels, and resting on an elevated concrete platform. Also mounted on the platform is the F-801 spray dryer furnace, D-807 combustion air blower, electrical power and controls, and associated ducting and HVAC support features. The steel framing of the structure is anchored to cast-in-place concrete pads.

Any dry remnants found in the bottom hopper or on horizontal surfaces of the tank interior will be manually removed, containerized, and transferred to the existing salt cementation process or to an off-Site vendor for disposal of residual sludges and solids. The tank will be steam cleaned to address any RCRA waste code issues. This steam cleaning will also be accomplished for the ducting associated with this tank's operational history. It is expected that F-801 and D-807 will require no interior treatment.

Transite panels on the second-story penthouse will be removed under an asbestos abatement permit. Removed panels will be wrapped and placed into appropriate containers for off-Site disposal as non-friable ACM. Painted transite will require an evaluation for the presence of lead-based paint. If the lead-based painted transite matrix fails to the meet the requirements for debris suitable for disposal as solid waste, the material will be managed as hazardous waste and will likely be transported to an off-Site TSD facility for encapsulation and burial.

Once the transite paneling has been removed, F-801 and D-807, piping, electrical conduit, ducting, controls, and instrumentation will be removed for disposition as recyclable, or for scrap. The tank will be detached from the concrete slab and lifted intact onto a suitable flatbed or low-boy trailer, and then transferred as SCO to NTS or other approved disposal facility. The steel framework and concrete slab will be demolished using a tracked excavator equipped with a hydraulic shear/grapple. All steel framing will be transferred off Site for recycling. Insulating materials, along with other incidental non-recyclable items, will be disposed as solid waste at a permitted off-Site sanitary landfill.

The concrete pads will be removed for recycling. Underground utilities in the area will be cut and capped within the concrete pad footprint, and the depressions will be backfilled and graded to match immediately adjacent elevations and conditions.

4.5.5 Demolition of Structures and Appurtenances Specific to Building 371/374

Once the majority of the outbuildings have been dispositioned, the structures and appurtenances associated with Building 371 and Building 374, but independent of the main production floor space of Building 371 will be demolished. The objective is to remove structures that do not allow unrestricted access to the main building. These structures include, but are not limited to: Building 374 Waste Treatment Operations, Building 371 Support Facility (offices, shops, and cafeteria that act as the transition between Building 371 and Building 374, and that occupy the south side of Building 371), and the Building 371 Switch House and Switch Yard located on the north side of Building 371. Removal of these features will allow access to structural concrete partition walls separating the production area of Building 371 from Building 374 to the east, and from the support facility to the south. In the event surface voids are created when these features are removed, the voids will be backfilled prior to continuing decommissioning activities in the affected areas.

Building 374, Waste Treatment Operations Structure, was constructed along the east side of the Building 371 Support Facility. It is constructed of conventional structural steel framing (i.e., vertical columns and roof beams) with portions of the east, north, and south exterior walls faced with pre-cast concrete tilt-up panels. The remaining exterior wall treatment is primarily painted structural concrete block. The structural framing system attaches to the west side cast-in-place concrete wall of the Building 371 Support Facility. The roofing system is a cast-in-place concrete deck covered with 2-inch rigid insulation and a built-up membrane. The east side loading dock area is a light steel-frame design with an interior metal cladding, and built-up roofing structure supported by open-web steel bar joists.

Floor treatments range from exposed sealed concrete slab, to vinyl composition tile, to glued-down carpet. Interior partition walls are a mix painted concrete block and standard metal-stud walls faced with gypsum board. There is also extensive suspended acoustic ceiling treatment throughout the office portions of the building and evidence of extensive transite paneling on interior walls of the active mechanical and equipment rooms.

It is anticipated that initial conditions for this portion of the Building 371/374 structure will be unrestricted released construction materials and equipment items left in place in Building 374 after the decontamination and stripout phase of the project has been completed, to include: interior partition walls, dropped ceiling systems, kitchen equipment, non-process and utility piping and materials, doors, windows, etc. It is planned that some of these remaining items will be suitable for reuse or for recycle, and as such will be selectively dismantled and removed. Additionally, it is also anticipated that the large tanks from Building 374 will be classified as SCO for disposal purposes, and will be allowed to remain in place until they can be removed intact, to be shipped whole to NTS or other approved disposal facility. This list of tanks includes, but is not limited to Tanks D-801 A-C, Tanks D-802 A-C, D-804 A-D, and D-811A and B in Room 2804; Tanks D-826 A-C, Tank D-823 in Room 3805; and Tank D-819 in Room 2804.

The general approach for the demolition of Building 374, will be to work to the west, beginning at the east side loading dock. The loading dock/ground floor slab will be used as the working surface for moving materials and as a stable surface for staging large demolition equipment. Initial tasks will be focused on the removal of items for recycle (e.g., HVAC equipment, electrical switch gear) and those construction materials and systems easily removed for recycling (e.g. stripping of large power conduits for copper cable). These materials will be moved to the east side loading dock area to be placed into staged debris containers, or to be transported off Site for recycle.

With the building stripped of recyclable items, electrical systems will be isolated from areas still requiring power, and engineered openings will be cut into the roof system of Building 374. The roof system is basically a heavy steel frame supporting a cast-in-place concrete roof deck covered with a high-density polyethylene (HDPE) membrane. The building framing is basically a nominal grid of 30-foot (east-west)

by 22½-foot (north-south) bays. With this in mind, appropriate sections of the roof decking and membrane system may be cut with a saw and lifted vertically, leaving the structural steel framing intact beneath. With the decking removed, access to the tops of the tanks will be reasonably unrestricted, and the tanks may be lifted intact through the roof openings, laid out horizontally on the asphalt apron outside of the building, re-slung to be picked for loading, and then loaded onto flatbed or low-boy trailers appropriately configured for the size and weight of a given tank. These tanks will then be shipped intact to the NTS or other approved disposal facility.

With all tanks removed from the building, tracked excavators equipped with hydraulic shear attachments will proceed west across the ground floor slab removing and sizing all building components that remain. The excavators will also segregate the debris to the best extent possible as they turn and move it to awaiting debris or recycle material containers. Initially, these containers will be placed onto the asphalt apron to the east and south of the building. As demolition progresses and floor space on the main slab becomes free, a ramp will be built up to the main floor elevation, and waste containers will be placed directly onto the main concrete slab.

As materials are cut and plucked from the building structure, the materials will be swung behind the excavator for segregation into appropriate debris streams (e.g., concrete for on-Site recycling, steel for off-Site recycling), and further size reduction, as necessary. As additional floor space on the ground floor slab becomes available, additional material processing equipment may be placed on the slab to facilitate the segregation and sizing operation. This approach will require a structural evaluation to guarantee full support of the weight of the excavator/shear attachment, as well as other demolition support equipment. If a conflict arises regarding floor loading, steel plates may be placed on the slab to better distribute the load of demolition equipment.

It is anticipated that the materials remaining after completion of decontamination activities will be suitable for unrestricted release and will not require additional screening prior to being loaded into containers for disposition. Consequently, material will be loaded as soon as possible, with containers leaving the Site immediately upon being filled. It is anticipated that debris materials will not be staged on Site, with shipping containers and/or appropriate trucking available to match the production rate of debris. A possible exception to this staging protocol could be the installation of a temporary concrete crusher at the demolition site. For the Building 374 structure alone, concrete materials suitable for processing into backfill material will come from the roof structure, all exterior pre-cast double-T walls, interior cast-in-place walls, and the floor slab. With this significant amount of concrete rubble suitable for backfill to be generated during this project, there would be a significant cost saving realized by not transporting the concrete to a centralized processing area, and then transporting it back for backfilling purposes.

The **Building 371 Support Facility** was constructed along the south side of Building 371 after completion of the main Building 371 production areas. It is constructed of conventional structural steel framing (vertical columns and roof beams) with the east, west, and south exterior walls faced with pre-cast concrete tilt-up panels. The roofing system is a cast-in-place concrete deck covered with 2-inch rigid insulation and a built-up membrane. Interior partition walls are painted concrete block or standard metal-stud walls faced with gypsum board. Floor treatments range from exposed sealed concrete slab, to vinyl composition tile, to glued-down carpet.

There is a decorative fascia applied to the exterior walls that contains a cement asbestos facing product applied to ¾-inch exterior plywood. This fascia will require a permitted abatement action prior to proceeding with demolition. This material will likely be considered a friable ACM product to be scraped off, thereby requiring a full containment to be implemented. It may be possible to remove the asbestos facing and plywood backer together, but that will require detailed evaluation.

The approach for the demolition of the support facility will mimic that of the Building 374 structure. Upon completion of the asbestos abatement and after isolating the area electrically, demolition will begin

along the south wall of the facility. A stripout task similar to that described for Building 374 will be performed, removing recyclable items such as lockers, cafeteria equipment, electrical switch gear, and HVAC equipment. Debris will be loaded directly into staged disposal or transport containers.

The **Building 371 Electrical Switch House and Switch Yard** were constructed as a part of the original structure. The Switch House contains the emergency generator and throw-over switch gear. There is also an exterior transformer yard housing four step-down transformers that receive electricity from the substation located due east of Building 374, through underground duct banks.

The Switch Yard has four separate transformers mounted on cast-in-place concrete pads. There are also concrete walls placed to separate each of the four transformers, isolating them from possible damage caused by explosion of an adjacent unit. The transformers are all placarded as being PCB-free. Power leaves the transformers through an overhead bus duct and enters the north wall of the Switch House.

The Switch House consists of a single-story addition attached to the north side of the main Building 371 production floor, and was constructed of cast-in-place concrete walls, with a steel framed roof support structure covered by a cast-in-place concrete deck and built-up roof membrane. It is approximately 40 feet wide by 160 feet long.

The fence surrounding the Switch Yard currently displays notifications indicating the potential for environmental impacts in this area. The first step in the demolition of this area will be for ER personnel to perform an investigation of the soils within the Switch Yard to identify all areas of soils potentially impacted by past practices. If possible, any impacted soil should be removed early to minimize spread of environmental problems during all demolition tasks, and to allow for complete Site closure once the main Building 371 structure has been razed. Once all impacted soils have been identified, isolated, and possibly removed, and all equipment isolated electrically, the switch gear will be lifted from within the Switch Yard and shipped off Site for recycle. The security fence surrounding the area will also be removed to facilitate access to the equipment to be removed from the Switch House. An underground duct bank system provides the conduit space for the high-voltage cables that feed Building 371. The cabling will be stripped from these duct banks for off-Site recycling, and the duct banks will be capped at both ends and abandoned-in-place.

To the extent possible, all switch gear and breakers will be removed from the Switch House with the structure remaining intact. Once all equipment that can be removed through existing doors is out, an opening will be created in the walls or roof in order to access the emergency generator. The generator will then be lifted out of the building, along with any remaining large switch gear and electrical equipment, and shipped off Site for reuse.

With all equipment removed, the structure will then be demolished. Prior to removal, the concrete slab and equipment mounting pedestals will be inspected for staining indicative of past oil spilling. If staining is evident, the concrete will require characterization prior to removal. As described for all other removals, concrete debris will be used as clean backfill material, metal will be sent off Site for recycling purposes, and remaining construction materials will be direct loaded as solid waste suitable for off-Site disposal in a permitted sanitary landfill. The final step will be to grade the entire Switch Yard/Switch House area to match adjacent elevations and conditions.

4.5.6 Demolition of the Main Portion of Building 371

As described below, techniques used to demolish the main portion of the Building 371 structure will differ from those used to demolish the other buildings within the Building 371/374 Closure Project.

Building 371 is a four-level, partially buried structure constructed of reinforced concrete. Even with prior partial removal of Building 374 and the Building 371 Support Facility, the building will still encompass approximately 150,000 ft^2 of floor space. The building construction was hardened to withstand the forces

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imposed by a design-basis earthquake or tornado. The hardened construction includes the exterior walls and roof, those parts of the building where plutonium recovery operations were conducted, and portions of the building that housed equipment or systems essential to the plutonium recovery processes or were necessary to contain plutonium within the building. Aspects of the hardened construction that will affect facility demolition activities include:

- Quantities of reinforcing steel beyond standard American Concrete Institute (ACI) requirements,
- Cast-in-place concrete interior partition walls versus typical concrete block or metal-stud and drywall partition systems,
- Cast-in-place concrete framing and floor slab system versus steel framing components,
- Concrete wall and slab thicknesses beyond typical industrial use/code requirements,
- An extensive foundation of concrete caissons up to 6 feet in diameter, drilled into bedrock,
- Two full operational levels below the ground floor slab and one above the slab,
- A basement located approximately 20 feet below the ground floor slab, and
- A sub-basement located 20 feet below the basement.

These factors, combined with the numerous vaults and canyons within the main portion of the structure, result in a complex, extremely strong and rigid building that will be resistant to most demolition methods. Consequently, the planned approach for demolition of the main portion of Building 371 includes the use of explosives.

Placement of explosives in an engineered, controlled fashion while the structure is still sound will minimize risks to personnel and equipment. In addition, the use of explosives will be enhanced by the beneficial effects of gravity, eliminating the need to move large quantities of soil away from the building walls. The roof structure and exterior walls will likely not require any explosive actions to initiate collapse, relying solely on gravity to bring them down into the sub-basement void. This will provide a protective shell that will contain any projectiles issued from the interior blasts.

In accordance with the *RSOP for Facility Disposition*, the use of explosives will be evaluated for its effects on worker health and safety and the environment, and for its cost-effectiveness, as compared to mechanical demolition techniques. Site personnel, the LRA, SRA, stakeholders, and the explosives contractor will be involved in the evaluation process. Given the structural aspects of Building 371, the use of explosives seems to be the preferred demolition method because it will provide the safest and most cost-effective means of removing the facility. The proposed method for implosion should also minimize adverse environmental effects.

In general, the sequence of demolition activities for the main portion of the Building 371 structure will proceed as follows:

1) Just prior to initiation of demolition activities, the main portion of the Building 371 structure will appear to be a two-story concrete box with the concrete roof system intact, bordered on the south and east sides by the exposed intact concrete ground floor slab representing the Building 374 and Building 371 Support Facility footprints.

2) Passage doors, vault doors, overhead roll up doors, elevator components, windows, grates, diffusers, stairway assemblies, and associated frames will be removed for recycle.

3) Openings will be created to lift the remaining SCO tanks from the facility for direct loading and transport to NTS or other approved disposal facility. This stripout action will include the items currently mounted to the building roof (e.g., aerial landing deterrent systems, security systems, HVAC equipment, lighting, lightning protection, roofing membrane, and roof insulation).

4) Upon completion of pre-demolition activities, the selected demolition contractor will begin preparations for collapse of the building. Following the engineered Demolition Plan, as required by the *RSOP for Facility Disposition*, the demolition crew will drill into various structural members and key connections to place calculated charges. Charges may also be wrapped around a structural member, such as a column base, depending on the size of the member and the action of the specific charge. Blast mats and/or chain link fencing will be wrapped around charges located near uncovered openings of the building to control projectiles from being ejected from the building.

5) With charges in place, an explosion sequence will be initiated along points of the sub-basement (e.g., along the east-west axis of the CSV), to move upward and outward through the basement, ground floor, and mezzanine structures, creating a void into which the walls and supporting columns will collapse. As the connections for interior structural framing elements are removed by the explosives and fall into the basement and sub-basement, the exterior walls and roof structure will collapse onto the top of the rubble pile created by the collapsed interior structures. It is anticipated that the rubble pile will be fairly flat and uniform, and free of large voids. The pile will be left as is, with the backfilling operation proceeding directly over it. Voids created by large pieces of concrete structure leaning against an adjacent wall or support column stub will be eliminated using a crane-mounted wrecking ball operating from outside the foundation wall. Exterior basement walls will be left intact, with the tops of the walls extending upward to a point no higher than three feet below the final proposed grade. At that time, an engineering analysis will be completed to ensure the fill meets the one percent subsidence requirement contained in the *RSOP for Recycling Concrete*. If the one percent requirement cannot be met, a ramp will be constructed, the material will be removed, and a soil backfill will be placed to complete the backfilling operation to conform with the one percent subsidence requirement.

6) With the collapse complete, an opening in the basement wall will be made by removing soil from a portion of an exterior basement wall, with an appropriate side sloping for safety, and then nibbling down the exposed concrete wall with an excavator-mounted hydraulic shear to create a ramp. Once the opening and ramp are completed, a bulldozer may be driven out onto the center of the collapsed building structure to manipulate the surface into a more reasonably uniform, flat surface (if necessary). The opening will also facilitate placement, manipulation, and compaction of backfill materials necessary to render the area safe for personnel involved in post-closure actions. Three-inch minus concrete backfill material created from the recycle of demolition debris will be used to fill remaining visible voids and air spaces, and to create a flat backfilling surface. Once this material is exhausted, a soil backfill will be placed to complete the backfilling operation to conform with the subsidence limits contained in the *RSOP for Recycling Concrete*.[17]

7) Finally, permanent run-on/run-off controls and/or erosion controls will be installed or, if appropriate, existing, temporary controls will be stabilized. In addition, the area will be cleaned of trash and miscellaneous debris, and the demolition crew will be demobilized.

[17] The concrete will be left as it remains after the implosion. Voids will be knocked out as noted in Item #6, above. A clay-based soil will be used to bridge the concrete and remaining fill material to ensure the lifetime subsidence requirement described in the *RSOP for Facility Disposition* can be maintained.

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5.0 WASTE MANAGEMENT

The *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition* describe the various waste types that will be generated during the Building 371/374 Closure Project. Waste estimates for these and other RFETS Closure Project activities are reported in the *Waste Generation, Inventory, and Shipping Forecast*, which includes projections for waste volumes to be generated, stored, and shipped from the Site in each fiscal year. Table 6 provides the current estimate of the types and volumes of remediation waste and recyclable materials that will be generated during the Building 371/374 Closure Project. Remediation waste will be managed in accordance with the ARARs described in Section 7.0 of this DOP, and with the remediation waste management requirements described in a Building 371/374 Operations Order, which will be prepared prior to the initiation of decommissioning activities.

5.1 Management Requirements for Compliance Order Wastes

The Site's inventories of idle equipment containing hazardous materials inventory, mixed residues contained in tank systems, and certain mixed wastes for which there is no current disposal path are governed by the terms and conditions of compliance orders on consent. The following paragraphs describe the management requirements for these wastes.

5.1.1 Idle Equipment Containing Hazardous Materials Inventory

Idle equipment containing hazardous materials is managed under the Idle Equipment and Hazardous Waste Tank Compliance Order on Consent and associated Idle Equipment Management Plan.[18] Table 7 contains a list of the currently-identified equipment in the Building 371/374 Closure Project. Some of this equipment may be dispositioned during deactivation and additional pieces of equipment may be identified during deactivation and/or decommissioning. An up-to-date list will be maintained in the Building 371/374 Closure Project Files.

Both existing and newly-identified idle equipment containing hazardous materials will be managed as follows:

- The idle equipment will be locked out/tagged out at the entry and exit points.
- The idle equipment will be subject to the following posting requirements:
  - Hazard Category 1, 2, and 3 equipment will be posted with a sign or tag, stating the following: "*This idle equipment contains material that, if released, could affect worker safety or the environment. Report any spillage to supervision immediately.*"
  - Hazard Category 4 equipment will not be posted.
- The idle equipment will be subject to the following inspection requirements:
  - Hazard Category 1 equipment will be inspected monthly.
  - Hazard Category 2 equipment will be inspected bi-monthly.
  - Hazard Categories 3 and 4 equipment will not be inspected.

[18] Idle Equipment and Hazardous Waste Tanks Compliance Order on Consent (97-08-21-01), including the RFETS Idle Equipment Management Plan (latest revision).

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Table 6. Building 371/374 Closure Project Waste & Recyclable Material Estimates

Category	Sub-Category	Volume[a]	Proposed Destination
Rad-Regulated			
Transuranic (TRU)	TRU	2,096 m^3	WIPP
	TRU Mixed (TRM)	398 m^3	WIPP
	Residues	4 m^3	WIPP
	TRU/TRM Liquids	< 1 m^3	TBD[d]
Low-Level (LL)	LL - Including Asbestos	3,631 m^3	TSD[b]
	LL - Structural Debris	4,103 m^3	TSD[b]
	LL - Surface Contaminated Objects (SCO)	17,885 m^3	TSD[b]
	LL - Contaminated Recycle Metal	<1 m^3	TBD[d]
	LL - Liquids	<1 m^3	TBD[d]
	LL - PCBs	3 m^3	TSD[b]
Low-Level Mixed (LLM)	LLM - RCRA solids	146 m^3	TSD[b, c]
	LLM - RCRA liquids	4 m^3	TSD[b, c]
Non-Rad Regulated			
Hazardous/Toxic	RCRA	7 m^3	TSD[b]
	CERCLA	<1 m^3	TSD[b]
	PCBs	12 m^3	TSD[b]
	RCRA/CERCLA Liquids	<1 m^3	TSD[b]
Sanitary	Routine Sanitary	<1 ton	Sanitary landfill
	Non-Routine Sanitary	10,452 tons	Sanitary landfill
	Rubble/Structural Construction Debris	<1 ton	TBD[d]
	Friable Asbestos	21 m^3	TSD[b]
	Non-Friable Asbestos	39 tons	Sanitary landfill
Material for Recycle	Salvage/PU&D	<1 m^3	Vendor
	Rubble/Structural Construction Debris	28,020 tons	Recycled on Site
	Radiological Test/Calibration Sources	<1 m^3	TBD[d]
	Non-Construction Scrap Metal/Recycle	<1 m^3	TBD[d]

[a] Waste estimates are based on best available information. This table is for information purposes only and will not be revised as estimates are updated. Waste estimates include demolished structures.

[b] The RFETS Environmental Home Page (http://rfetshp/environmental/) contains a list of currently authorized treatment, storage, disposal (TSD) facilities. Facilities are selected by the contractor based on periodic environmental audits, which are conducted in accordance with the Off-Site Waste Management Program (1-MAN-037-OWMP, latest revision) and documented in Off-Site Waste Management Facility Use Decisions (FUDs).

[c] Assumed to include on-Site treatment facilities (e.g., RCRA Unit 374.3).

[d] Destination to be determined.

Table 7. Building 371/374 Idle Equipment with Hazardous Materials Inventory

Location	Idle Equipment Number	Set	Description	Material	Rad-Contaminated ?	Haz Cat	Quantity
Rm. 1117	371-0008	12	Wash Liquid Pump 31-17, P-182, from D170 to D172	nitric acid	Yes	4	< 1 pint
Rm. 1117	371-0009	12	HSA Waste Pump 34-04, P4B, Tank D4B from E9, T10 to 2, D811	potassium hydroxide	Yes	4	< 1 pint
Rm. 1117	371-0010	12	HSA Waste Pump 34-04, P3A, Tank D3A, from E1, E80 to D811	potassium hydroxide	Yes	4	< 1 pint
Rm. 1117	371-0011	12	HSA Waste Pump 34-04, P3B, Tank D3B, from E1, E80 to D811	potassium hydroxide	Yes	4	< 1 pint
Rm. 1117	371-0012	12	HSA Waste Pump 34-04, P4A, Tank D4A, from E9-E10 to D2, D811	potassium hydroxide	Yes	4	< 1 pint
Rm. 3517	371-0049	3	Nitric Acid Recirculation Pump 31-11, P-28A	.35N nitric acid	Yes	4	<1 pint
Rm. 3517	371-0050	3	Nitric Acid Recirculation Pump 31-11, P-28B	.35N nitric acid	Yes	4	<1 pint
Rm. 3517	371-0051	3	Nitric Acid Recirculation Pump 31-11, P-29A	.35N nitric acid	Yes	4	<1 pint
Rm. 3517	371-0052	3	Nitric Acid Recirculation Pump 31-11, P-29B	.35N nitric acid	Yes	4	<1 pint
Rm. 3517	371-0054	3	Nitric Acid Pump 31-15, P-63	.35N nitric acid	Yes	4	< 1 pint
Rm. 3521	371-0055	16	Tank D-70	corrosive liquid	Yes	4	operation -ally empty
Rm. 3545	371-0067	6	Spent Resin Transfer Pump 31-11, P-18	water, .35N nitric acid, and resin	Yes	4	< 1 pint
Rm. 3553	371-0068	6	Evaporator 31-14, P-60A, P-66A	7.5N nitric acid and hydrogen peroxide	Yes	4	< 1 pint

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Table 7. Building 371/374 Idle Equipment with Hazardous Materials Inventory

Location	Idle Equipment Number	Set	Description	Material	Rad-Contaminated ?	Haz Cat	Quantity
Rm. 3553	371-0069	6	Evaporator Pump 31-14, P-60B, P-66B	7.5N nitric acid and hydrogen peroxide	Yes	4	< 1 pint
Rm. 3559	371-0072	6	Additives Measuring Tank 31-11, D-63A	iron sulfate, aluminum nitrate, sodium	Yes	2	operation -ally empty
Rm. 3559	371-0073	6	Additives Measuring Tank 31-11, D-63B	iron sulfate, aluminum nitrate, sodium	Yes	2	operation -ally empty
Rm. 3563	371-0075	6	Additives Measuring Tank 31-11, D-57A	iron sulfate, aluminum nitrate, sodium	Yes	2	operation -ally empty
Rm. 3563	371-0076	6	Additives Measuring Tank 31-11, D-57B	iron sulfate, aluminum nitrate, plutonium	Yes	2	operation -ally empty
Rm. 3563	371-0077	6	Additives Measuring Tank 31-11, D-57C	iron sulfate, aluminum nitrate, plutonium	Yes	2	operation -ally empty
Rm. 3563	371-0078	6	Additives Measuring Tank 31-11, D-57D	iron sulfate, aluminum nitrate, plutonium	Yes	2	operation -ally empty
Rm. 3571	371-0079	4	Evaporator Bottoms Pump 31-18, P-49A	corrosive, nitric acid	Yes	4	< 1 pint
Rm. 3571	371-0080	4	Evaporator Bottoms Pump 31-18, P-49B	corrosive, nitric acid	Yes	4	< 1 pint
Rm. 3523	371-0104	16	Tanks T-23A, B, C, D	corrosive	Yes	4	operation -ally empty
Rm. 3517	371-0107	3	Pumps P-28A, P-28B, P-29A, and P-29B	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 3545	371-0108	6	Pumps P-30A, P-30B, P-32A, P-32B	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 3517	371-0109	3	Pumps P-33A, P-33B, P-34A, P-34B	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 1105	371-0112	11	Pumps P-83A, P-83B, P-122A, P-122B, P-123A, P-123B, P-125A, P-125B, P-126A, P-126B	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 1115	371-0113	12	Pumps P-140, P-141A, P-141B	corrosive, caustic solution	Yes	4	< 1 pint

Table 7. Building 371/374 Idle Equipment with Hazardous Materials Inventory

Location	Idle Equipment Number	Set	Description	Material	Rad-Contaminated ?	Haz Cat	Quantity
Rm. 1117	371-0114	12	Pumps P-181 and P-182	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 1125	371-0115	12	Pumps P-5A, P-5B, P-6A, P-6B, P-7A, P-7B, P-15A, P-15B, P-27A, P-27B, P-107A, P-107B, P-108A, P-108B	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 2307	371-0117	13	Pumps P-21A, P-914	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 2317	371-0119	13	Pumps P-85A, B, C; P-27A, B, C	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 3202	371-0120	8	Pumps P-23, and P-35	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 3206	371-0121	8	Pumps P-10, P-11, P-12, P-13, P-41	corrosive, caustic solution	Yes	4	< 1 pint
Rm. 3305	371-0122	7	Pumps P-171 to P-180	corrosive, caustic solution	Yes	4	< 1 pint

- Inspections will be conducted by RCRA-qualified inspectors, who will ensure the equipment is posted, in good condition, and not leaking. Inspectors will document their inspections in an inspection log, noting any required corrective measures.
- The equipment will be drained and removed according to the schedule established for the applicable Dismantlement Set.
- The equipment will be drained to the point of being empty. For surfaces of the equipment that are visible and readily accessible, the affected surfaces (i.e., surfaces that may have come into contact with hazardous waste) will be cleaned or wiped visually clean (i.e., no oily surface or sheen) to satisfy the RCRA definition of a "clean debris surface."[19] In the event the clean debris surface standard cannot be met, the equipment will be cleaned or wiped down to remove as much removable contamination as reasonably possible, with the objective of eliminating significant risk from the remaining residuals.
- The hazardous waste will be characterized in accordance with 6 CCR 1007-3, Part 262.11. Sampling methods, if used, will comply with those listed in Appendix I of 6 CCR 1007-3, Part 261. Analytical test methods, if used, will comply with those instructions contained in EPA Manual SW-846 and applicable RFETS laboratory procedures.

[19] A "clean debris surface" is defined as "a surface that, when viewed without magnification, is free of all visible contaminated soil or hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided such staining and soil and waste in cracks, crevices, and pits is limited to no more than 5% of each square inch of surface area." (6 CCR 1007-3, Section 268.45)

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- When empty, the equipment will be characterized and managed in accordance with the applicable ARARs.

In accordance with ¶62 of the Idle Equipment and Hazardous Waste Tank Compliance Order on Consent, the order is hereby terminated as to each piece of idle equipment located in Building 371.

5.1.2 Mixed Residues

Residues are plutonium-contaminated liquids and solids that were once held in reserve at RFETS, because they potentially contained plutonium in sufficient quantities to warrant treatment for recovery of nuclear material. Building 371 has an existing inventory of residues and residues mixed with hazardous waste, which are being treated and/or repackaged in preparation for shipment to WIPP. Building 374 does not contain any mixed residue tanks. The mixed residue tank units located within Building 371 are listed in Table 8.

Table 8. Building 371 Mixed Residue Tank Units

Room #	Set#	RCRA Unit #	Tank #	Tank Type	Contents
1107	12	N/A	D44A1	pencil	nitric acid, plutonium
1107	12	N/A	D44A2	pencil	nitric acid, plutonium
1107	12	N/A	D44A4	pencil	nitric acid, plutonium
1107	12	N/A	D44A5	pencil	nitric acid, plutonium
1107	12	N/A	D44A6	pencil	nitric acid, plutonium
1107	12	N/A	D44B1	pencil	nitric acid, plutonium
1107	12	N/A	D44B2	pencil	nitric acid, plutonium
1107	12	N/A	D44B4	pencil	nitric acid, plutonium
1107	12	N/A	D44B5	pencil	nitric acid, plutonium
1107	12	N/A	D44B6	pencil	nitric acid, plutonium
1109	12	N/A	D43A1	pencil	nitric acid, plutonium
1109	12	N/A	D43A2	pencil	nitric acid, plutonium
1109	12	N/A	D43A3	pencil	nitric acid, plutonium
1109	12	N/A	D43A4	pencil	nitric acid, plutonium
1109	12	N/A	D43A5	pencil	nitric acid, plutonium
1109	12	N/A	D43B1	pencil	nitric acid, plutonium
1109	12	N/A	D43B2	pencil	nitric acid, plutonium
1109	12	N/A	D43B3	pencil	nitric acid, plutonium
1109	12	N/A	D43B4	pencil	nitric acid, plutonium
1109	12	N/A	D43B5	pencil	nitric acid, plutonium
1115	12	91.008	D160A	raschig ring	potassium hydroxide, plutonium
1115	12	91.009	D160B	raschig ring	potassium hydroxide, plutonium
1115	12	N/A	D400A	raschig ring	caustic, nitric acid

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Table 8. Building 371 Mixed Residue Tank Units

Room #	Set#	RCRA Unit #	Tank #	Tank Type	Contents
1115	12	N/A	D400B	raschig ring	caustic, nitric acid
1115	12	N/A	D400C	raschig ring	caustic, nitric acid
1115	12	N/A	D179	raschig ring	nitric acid, potassium hydroxide, plutonium
1117	12	91.010	D2A	raschig ring	caustic, plutonium
1117	12	91.011	D2B	raschig ring	caustic, plutonium
1117	12	N/A	D238A	raschig ring	potassium hydroxide, plutonium
1117	12	N/A	D238B	raschig ring	potassium hydroxide, plutonium
1117	12	N/A	D240A	raschig ring	potassium hydroxide, plutonium
1117	12	N/A	D240B	raschig ring	potassium hydroxide, plutonium
1117	12	N/A	D170	pencil	nitric acid, plutonium
1117	12	N/A	D171	pencil	nitric acid, plutonium
1117	12	N/A	D157A	raschig ring	potassium hydroxide, plutonium
1117	12	N/A	D157B	raschig ring	potassium hydroxide, plutonium
1127	12	91.012	D293A	raschig ring	nitric acid, hydrochloric acid, potassium hydroxide, plutonium
1127	12	91.013	D293B	raschig ring	nitric acid, hydrochloric acid, potassium hydroxide, plutonium
2223	15	91.014	D934A	raschig ring	nitric acid, hydrochloric acid, plutonium
2223	15	91.015	D934B	raschig ring	nitric acid, hydrochloric acid, plutonium
2317	13	91.016	D292A	raschig ring	nitric acid, hydrochloric acid, plutonium
2317	13	91.017	D292B	raschig ring	nitric acid, hydrochloric acid, plutonium
3517	3	N/A	D132A	raschig ring	nitric acid, plutonium
3517	3	N/A	D132B	raschig ring	nitric acid, plutonium
3517	3	N/A	D132C	raschig ring	nitric acid, plutonium
3549	6	N/A	D173A	pencil	nitric acid, plutonium
3549	6	N/A	D173B	pencil	nitric acid, plutonium
3549	6	N/A	D68A	pencil	nitric acid, potassium hydroxide, plutonium
3549	6	N/A	D68B	pencil	nitric acid, potassium hydroxide, plutonium
3549	6	N/A	T-6A	pencil	nitric acid, plutonium
3549	6	N/A	T-6B	pencil	nitric acid, plutonium
3549	6	N/A	T-6C	pencil	nitric acid, plutonium
3549	6	N/A	T-6D	pencil	nitric acid, plutonium
3549	6	N/A	T-7A	pencil	nitric acid, plutonium
3549	6	N/A	T-7B	pencil	nitric acid, plutonium
3549	6	N/A	T-7C	pencil	nitric acid, plutonium

Table 8. Building 371 Mixed Residue Tank Units

Room #	Set#	RCRA Unit #	Tank #	Tank Type	Contents
3549	6	N/A	T-7D	pencil	nitric acid, plutonium
3549	6	N/A	T-9A	pencil	nitric acid, plutonium
3549	6	N/A	T-9B	pencil	nitric acid, plutonium
3553	6	N/A	D72A	pencil	nitric acid, plutonium
3553	6	N/A	D72B	pencil	nitric acid, plutonium
3553	6	N/A	D66A	pencil	nitric acid, potassium hydroxide, plutonium
3553	6	N/A	D66B	pencil	nitric acid, potassium hydroxide, plutonium
3553	6	N/A	T-4A	pencil	nitric acid, plutonium
3553	6	N/A	T-4B	pencil	nitric acid, plutonium
3553	6	N/A	T-4C	pencil	nitric acid, plutonium
3553	6	N/A	T-5A	pencil	nitric acid, plutonium
3553	6	N/A	T-5B	pencil	nitric acid, plutonium
3553	6	N/A	T-5C	pencil	nitric acid, plutonium
3553	6	N/A	T-28A	pencil	nitric acid, plutonium
3553	6	N/A	T-28B	pencil	nitric acid, plutonium
3553	6	N/A	T-28C	pencil	nitric acid, plutonium
3559	6	N/A	D50A	raschig ring	nitric acid, plutonium
3559	6	N/A	D50B	raschig ring	nitric acid, plutonium
3559	6	N/A	D51A	raschig ring	nitric acid, plutonium
3559	6	N/A	D51B	raschig ring	nitric acid, plutonium
3559	6	91.039	D55A	raschig ring	nitric acid, plutonium
3559	6	91.040	D55B	raschig ring	nitric acid, plutonium
3559	6	N/A	D59	raschig ring	nitric acid, plutonium
3559	6	N/A	D69A	raschig ring	nitric acid, plutonium
3559	6	N/A	D69B	raschig ring	nitric acid, plutonium
3559	6	N/A	D69C	raschig ring	nitric acid, plutonium
3563	6	N/A	D49A	raschig ring	nitric acid, plutonium
3563	6	91.041	D49B	raschig ring	nitric acid, plutonium
3563	6	91.042	D49C	raschig ring	nitric acid, plutonium
3563	6	91.043	D49D	raschig ring	nitric acid, plutonium
3563	6	N/A	D52A	raschig ring	nitric acid recycled solution
3563	6	N/A	D52B	raschig ring	nitric acid recycled solution
3571	4	N/A	D150	raschig ring	nitric acid, plutonium
3571	4	N/A	D151	raschig ring	acid fumes

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Table 8. Building 371 Mixed Residue Tank Units

Room #	Set#	RCRA Unit #	Tank #	Tank Type	Contents
3571	4	N/A	D152A	raschig ring	nitric acid, plutonium
3571	4	N/A	D152B	raschig ring	nitric acid, plutonium
3571	4	N/A	D133	raschig ring	nitric acid, plutonium
3573	5	N/A	D134A	raschig ring	nitric acid, plutonium
3573	5	N/A	D134B	raschig ring	nitric acid, plutonium
3573	5	N/A	D134C	raschig ring	nitric acid, plutonium
3573	5	N/A	D135A	raschig ring	nitric acid, plutonium
3573	5	N/A	D135B	raschig ring	acid solution
3573	5	N/A	D289A	raschig ring	nitric acid, plutonium
3573	5	N/A	D289B	raschig ring	acid solvent
3573	5	N/A	D289C	raschig ring	acid solvent

The existing inventory of liquid mixed residues contained in tanks and ancillary equipment has been managed under the terms and conditions of the Mixed Residue Compliance Order on Consent.[20] As part of facility deactivation, these tanks were tapped and drained in 1999. The tanks are currently in a physically empty configuration and are inspected quarterly. In the event additional inventory is discovered in a tank during decommissioning, Building 371/374 facility management will develop an action plan to determine the source of the liquid, or schedule a sampling event or other appropriate action to make a hazardous waste determination. If appropriate, the action plan may include draining the liquid from the system. The Building 371/374 Closure Project Health and Safety Plan (HASP) contains pre-planning requirements for responses to possible releases from mixed residue tank systems. Pre-planning activities include identification of vital elements of the tank system, identification of locations of primary shut-off valves capable of isolating feed to a tank, and a pre-release plan, which specifies the recommended method to drain the tank system (e.g., hot tapping at a low spot, draining into bottles, or draining into another tank system). Facility operations personnel are trained to implement the pre-release plan and accompanying shut-off procedures. In the event of an actual release from a mixed residue tank system, the Site's RCRA Contingency Plan will be implemented.

In accordance with ¶66(i) of the Mixed Residue Compliance Order on Consent, the order is hereby terminated as to each of the mixed residue tanks located in Building 371.

5.1.3 Site Treatment Plan Wastes

The Compliance Order Requiring Compliance with the Site Treatment Plan (STP)[21] governs the management of certain mixed wastes for which there is no current treatment or disposal path. These wastes include LLM wastes with actinide activity levels between 10 and 100 nCi/g, and wastes containing hazardous constituents that are prohibited from land disposal under RCRA and the CHWA (i.e., land

[20] Mixed Residue Compliance Order on Consent (99-09-24-01), including the Mixed Residue Tank Plan.

[21] Compliance Order Requiring Compliance with the Site Treatment Plan (95-10-03-01) was issued pursuant to the CHWA and RCRA, as amended by the Federal Facility Compliance Act, which required the development and submittal of a Site Treatment Plan for each facility at which DOE generates or stores mixed wastes.

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disposal restricted [LDR] wastes. The STP describes the development of treatment capacities and technologies for these wastes. Progress is tracked through the Annual Progress Report and Work Plan, and Quarterly Progress Update reports, which are submitted for review and approval by CDPHE. STP wastes are tracked on a Site-wide basis, by waste form. The current inventory of STP wastes includes combustibles, acids, lab solutions, filters, glass and ground glass, inorganic sludges, insulation, and salt brine.

5.2 Waste Treatment

Remediation waste generated during decommissioning may be treated in the Site's RCRA-permitted treatment units; under the generator treatment provisions of 6 CCR 1007-3, Part 100.21(d); under the debris rule standard identified in the 6 CCR 1007-3, Part 258.45; in temporary units established under the substantive requirements of 6 CCR 1007-3, Part 264.553, or under 40 CFR 300.

5.3 Waste Disposal

Wastes generated as a result of facility decommissioning activities will be packaged and characterized in compliance with RFETS waste management procedures[22], which implement treatment, storage, disposal facility WAC and DOT packaging requirements. Treatment, storage, and disposal facilities are selected by the contractor based on periodic environmental assessments of facilities offering the required waste management services. Assessments are performed in accordance with the requirements of the Off-Site Waste Management Program[23] and results are documented in Off-Site Waste Management Facility Use Decisions (FUDs).

Off-Site facilities accepting remediation waste from RFETS must meet the requirements of the CERCLA "off-site rule." The primary purpose of the "off-site rule" is to clarify and codify the CERCLA requirements to prevent waste generated from remediation activities conducted under a CERCLA action from contributing to present or future environmental problems at off-Site waste management facilities. Only facilities meeting EPA's acceptability criteria may be used for off-Site management of remediation waste.

5.4 Waste Minimization and Recycling

Waste minimization and recycling will be integrated into the IWCP process and into the management of the remediation waste generated during decommissioning. Unnecessary generation of sanitary, hazardous, LL or LLM, TRU or TRM, and Toxic Substances Control Act (TSCA) waste will be controlled using work techniques that prevent the contamination of areas and equipment; preventing unnecessary packaging, tools, and equipment from entering radiological contaminated areas; and reusing contaminated tools and equipment when practical.

Standard decontamination operations and processes will be evaluated for waste minimization potential and suitable minimization techniques will be implemented. Property with radiological contamination or property containing hazardous materials may be reused or recycled on Site, off Site by other DOE facilities, or by publicly or privately owned facilities having proper authorization to take possession of the property. Materials generated during decommissioning will be recycled based on availability of

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[22] See the Building 371/374 Waste Stream and Residue Identification & Characterization (WSRIC), (latest revision); Waste Characterization, Generation, and Packaging (PRO-079-WGI-001), (latest revision); Solid Radioactive Waste Packaging (4-D99-WO-1100), (latest revision); and Non-Radioactive Waste Packaging (PRO-301-WP-1027/NONRAD), (latest revision).

[23] Off-Site Waste Management Program (1-MAN-037-OWMP), (latest revision).

appropriate recycle technologies, availability of approved recycle facilities, and cost effectiveness. Table 9 describes the recycling options that will be considered for the Building 371/374 Closure Project.

Table 9. Material Recycling Options

Material	Recycle Option	Comments
"Clean" scrap metal (not radioactively contaminated and not considered hazardous in accordance with RCRA)	Recycle through approved scrap metal vendors or via contract.	Material must meet receiving facility's WAC and licensing requirements, if any.
Radioactively contaminated scrap metal	Recycle by means of metal melt process vendors or contract.	Material must not exceed contamination types and levels identified in the receiving facility's WAC and licensing requirements, if any.[24]
Radioactive mixed scrap material (i.e., radioactively contaminated scrap metal mixed with hazardous constituents)	None	Currently trying to locate and approve facilities that can manage this type of material.
Non-radioactive scrap metal contaminated with beryllium	Decontaminate and recycle through approved commercial facility.	Decontamination must meet the release criteria prescribed by 10 CFR 850.
Clean building rubble	Reuse on Site as backfill.	Must meet release criteria established in the *RSOP for Recycling Concrete.*
Clean wiring and other electrical components.	Recycle through approved commercial recycling facility.	Material must not exceed contamination types and levels identified in the receiving facility's WAC and license.
Clean bulk plastics and glass	Recycle through approved commercial recycling facility.	Material must not exceed contamination types and levels identified in the receiving facility's WAC and license.
Used lead acid batteries	Recycle through approved commercial recycling facility.	Material must meet receiving facility's WAC and licensing requirements, if any.
Used oil	Recycle through approved commercial fuel blending facility.	Material must meet receiving facility's WAC and licensing requirements, if any.

[24] On January 12, 2000, the Secretary of Energy placed a moratorium on DOE's unrestricted release of scrap metals for recycling, pending a decision by the Nuclear Regulatory Commission (NRC). This was followed by a memorandum to DOE department heads on July 13, 2000, directing further action in four areas: (1) improvement of DOE's release criteria and monitoring practices; (2) expansion of efforts to promote reuse and recycling within the DOE Complex; (3) improvement of DOE's management of information concerning material inventories and releases; and (4) accelerated recovery of sealed sources.

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6.0 CLOSURE OF RCRA-REGULATED UNITS

The RCRA-regulated units for the Building 371/374 Closure Project are listed in Appendix A, associated unit-specific closure information is provided in Appendix B, and tank drawings are provided in Appendix C.

6.1 Closure Options

RCRA-regulated units will be decontaminated and/or removed in compliance with the closure options described in *the RSOP for Facility Component Removal, Size Reduction, and Decommissioning Activities.*

6.2 Closure Schedule

All RCRA-regulated units or portions of RCRA-regulated units located within the Building 371/374 facility footprint will be closed prior to facility demolition. Units located outside the facility footprint (e.g., process waste tanks T-231A and T-231B [Units 43.01and 43.02), the valve vaults, and process waste lines associated with the Building 374 Aqueous Waste Treatment System [Unit 374.3] will be closed in three stages:

1. Building 374 liquid waste operations personnel will take the process waste tanks and process waste lines to a RCRA Stable configuration in accordance the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities.*
2. RISS program personnel will close the valve vaults in accordance with the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities.*
3. ER program personnel will close the Tanks T-231A, T-231B, and the process waste lines in accordance with an approved ER decision document.

To facilitate final disposition, pertinent characterization information will be transferred to the RISS and ER programs and recorded in the administrative record. The administrative record will describe the location of any remaining piping and applicable characterization information (e.g., process knowledge and sampling results).

6.3 Closure Documentation

For RCRA units undergoing clean closure by decontamination, a closure certification will be prepared and signed by an independent, Colorado-registered, professional engineer. The closure certification will be submitted to the LRA for review and concurrence within 60 days after completion of the associated closure activities. Units closed by historical knowledge confirmation or removal will not require a professional engineer's certification.

RCRA unit closure activities will be documented in the Building 371/374 Closure Project AR File and referenced in the PDSR, which will be completed prior to building demolition. Upon final closure of each RCRA-regulated unit, the Site's Master List of RCRA Units will be updated to reflect the new closure status and the unit will be removed from the RCRA Part A and Part B Permits in accordance with the applicable hazardous waste regulations.[25]

[25] Code of Colorado Regulations, 6 CCR 1007-3, Section 100.63, Permit Modification at the Request of the Permittee.

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7.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Decommissioning activities conducted at RFETS must comply with the ARARs under CERCLA. ARARs have been identified for the complete scope of decommissioning activities, including demolition, and they are contained in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition.*[26]

[26] Certain State of Colorado Radiation Control Regulations pertaining to decommissioning and environmental releases may be relevant and appropriate to building decommissioning and environmental restoration activities, particularly the cleanup of soils. The parties to RFCA are in the process of negotiating a final list. Appendix A will be modified, as appropriate, when the reach agreement on the final list.

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8.0 ENVIRONMENTAL CONSEQUENCES

RFCA mandates incorporation of National Environmental Policy Act (NEPA) values into RFCA decision documents. The *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition* summarize the results of the environmental impact analyses that were performed for the full scope of RFETS Closure Project, including the decommissioning activities described in this DOP.

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9.0 IMPLEMENTATION SCHEDULE

The recent Site-wide re-baselining effort has resulted in the development of a detailed schedule and basis of estimate for completion of the Building 371/374 Closure Project. A copy of this schedule is provided in Appendix D. The schedule is not an enforceable part of this DOP and DOE or its contractor may alter the schedule without prior notification to or approval by the LRA. Significant schedule changes will be shared with the LRA as part of the RFCA consultative process.

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10.0 NOTIFICATION REQUIREMENTS

This DOP satisfies the notification requirements for the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition.*

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11.0 RECORDS DISPOSITION

Building 371/374 Closure Project records consist of the CERCLA Administrative Record (AR) File, the RCRA Operating Record, the Closure Project Files, and the Decommissioning Final Closeout Report and associated documentation.

11.1 CERCLA Administrative Record File

This section identifies the documents that constitute the AR File for the Building 371/374 Closure Project. Upon completion of the public comment period, comments received from stakeholders will be incorporated into this DOP. LRA approval of this DOP constitutes approval of the AR File. The following documents comprise the Building 371/374 Closure Project AR File:

- Final Rocky Flats Cleanup Agreement (RFCA)
- RFETS Decommissioning Program Plan (DPP)
- RFETS Facility Disposition Program Manual (FDPM)
- RFETS Decontamination & Decommissioning Characterization Protocol (DDCP)
- RFETS Reconnaissance Level Characterization Plan (RLCP)
- Building 371/374 Closure Project Joint Scoping Meeting Minutes/Disposition
- Building 371/374 Closure Project Reconnaissance Level Characterization Report (RLCR) and related correspondence
- Draft Building 371/374 Closure Project DOP
- Final Building 371/374 Closure Project DOP and related correspondence
- Concurrence letter for the Building 371/374 RLCR
- Approval letter for the final B371/374 DOP
- All other documents referenced in this DOP

The following information repositories have been established to provide public access to the Building 371/374 Closure Project AR File:

U.S. Environmental Protection Agency (EPA)
Region VIII
Superfund Records Center
999 18th Street, Suite 500
Denver, Colorado 80202-2466
(303) 293-1807

Rocky Flats Citizens Advisory Board (RFCAB)
9035 Wadsworth Parkway
Suite 2250
Westminster, Colorado 80021
(303) 420-7855

Colorado Department of Public Health and Environment (CDPHE)
Information Center, Building A
4300 Cherry Creek Drive South
Denver, Colorado 80220-1530
(303) 692-3312

U.S. Department of Energy Rocky Flats Public Reading Room
Front Range Community College Library
3645 West 112th Avenue, Level B
Westminster, Colorado 80030
(303) 469-4435

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11.2 RCRA Operating Record

RCRA records, including inspection records, will be maintained with the existing Building 371/374 RCRA Operating Record. Upon completion of the Building 371/374 Closure Project, the RCRA Operating Record will be transferred to Site Records Management for storage.

11.3 Closure Project Files

Project-specific documents will be stored in the Building 371/374 Closure Project Files until final closure is complete, at which time the Closure Project Files will be processed through Site Records Management and archived. The Closure Project Files will contain characterization documentation, inventory sheets, project correspondence, comment resolution, IWCP work packages, and additional information that is a direct result of the work involved in the project. Maintenance of the Closure Project Files is a Site requirement.

11.4 Decommissioning Final Closeout Report

Upon completion of decommissioning activities for the Building 371/374 Closure Project, a Decommissioning Final Closeout Report will be prepared in accordance with RFCA[27] and the DPP.[28] The Closeout Report will consist of a brief description of the work completed, including:

- Any modifications to the original DOP;
- Final sampling and analysis reports;
- A description of the quantity and characteristics of the wastes generated and how the wastes were stored or disposed; and
- A statement, if true, that the goals and objectives of the Project were met and if not, what additional work is required.

The expected outline for the Closeout Report is shown below. The format may change to meet the needs of the Project.

- Introduction
- Remedial action description
- Verification that remedial action goals were met
- Verification of treatment process (if applicable)
- Radiological analysis (if applicable)
- Waste stream disposition
- Site reclamation
- Deviations from the decision document
- Demarcation of where excavation took place
- Dates and durations of specific activities (approximate)
- Final disposition of wastes (actual or anticipated)

Upon completion, the Decommissioning Final Closeout Report will be submitted for review and approval by the LRA.

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[27] RFCA Implementation Guidance Document (Appendix 3 to RFCA), (latest revision).

[28] DPP Section 3.3.11, Notifying Regulators of Completion of Decommissioning (latest revision).

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12.0 COMMENT RESPONSIVENESS SUMMARY

The responsiveness summary addressing stakeholder comments on the final draft version of this DOP will be attached as Appendix E.

GLOSSARY OF TERMS

Following are terms that are unique to this RFCA decision document. For the definitions of other terms used in this and other RFCA decision documents, refer to the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*, the *RSOP for Facility Disposition*, and the *RSOP for Recycling Concrete*.

Decommissioning Area. Small, manageable grouping of similar systems, equipment, and areas or rooms that may be worked independently. Dismantlement Sets contain less than 2,000 dpm removable contamination and are generally decommissioned by Building Trades.

Dismantlement Set. Small, manageable grouping of similar systems, equipment, and areas or rooms that may be worked independently. Dismantlement Sets contain greater than 2,000 dpm removable contamination and are generally decommissioned by Steelworkers.

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APPENDIX A

BUILDING 371/374
RCRA-REGULATED UNITS

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APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area*	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
AB	371.1	371	Container Storage, Rm. 1103	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AA	371.1	371	Container Storage, Rm. 1210 (90.63)⊕	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AD	371.1	371	Container Storage, Rm. 2011	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Unit	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
AD	371.1	371	Container Storage, Rm. 2202	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AE	371.1	371	Container Storage, Rm. 2202A, 2202B, 2202C (90.10)⊕	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AD	371.1	371	Container Storage, Rm. 2207 (90.5)⊕	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area*	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
10	371.1	371	Container Storage, Rm. 2217	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
15	371.1	371	Container Storage, Rm. 2223/2207 (90.20/90.5)⊕	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
48, 49	371.1	371	Container Storage, Rm. 2306	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Unit #	Bldg #	Unit Description	Regulatory Status	EPA Waste Codes
AA	371.1	371	Container Storage, Rm. 2321	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AD	371.1	371	Container Storage, Rm. 2325 (90.16)	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AP	371.1	371	Container Storage, Rm. 3187B (counter only), (90.11)[⊕]	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
35	371.1	371	Container Storage, Rm. 3189 (90.1) ⊕	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AK	371.1	371	Container Storage, Rm. 3206 (90.9) ⊕	Permitted container storage unit; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AJ	371.1	371	Container Staging Area, Rm. 3301	Permitted container staging area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
AJ	371.1	371	Container Storage, Rm. 3305 (90.104)⊕	Permitted container storage area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AJ	371.1	371	Container Staging Area, Rm. 3315 (90.103)⊕	Permitted container staging area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
AJ	371.1	371	Container Storage, Rm. 3321 (90.6)⊕	Permitted container storage area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

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APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area*	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
23	371.1	371	Container Storage, Rm. 3341 (90.7) ⊕	Permitted container storage area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
34	371.1	371	Container Storage, Rm. 3420 (63) (90.63) ⊕	Permitted container storage area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
32	371.1	371	Container Storage, Rm. 3501 (90.62) ⊕	Permitted container storage area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area*	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
33	371.1	371	Container Staging Area, Rm. 3513	Permitted container staging area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
31	371.1	371	Container Staging Area, Rm. 3541	Permitted container staging area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
36	371.1	371	Container Staging Area, Rm. 3709	Permitted container staging area; in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
8	371.1	371	Glovebox Container Storage, Rm. 3206, GB-40 (90.143)⊕ and GB-42	Permitted container storage area; in active use.	D001-D011, D018, D019, D022, D027, D028, D029, D035, D040, F001-F003, F005
24	371.1	371	Glovebox Container Storage, Rm. 3408, Gloveboxes 72B & 72C (90.142)⊕	Permitted container storage area; in active use.	D001-D011, D018, D019, D022, D027, D028, D029, D035, D040, F001-F003, F005
25	371.1	371	Glovebox Container Storage, Rm. 3412, Gloveboxes 48B & 48C (90.18)⊕	Permitted container storage area; in active use.	D001-D011, D018, D019, D022, D027, D028, D029, D035, D040, F001-F003, F005
26	371.1	371	Glovebox Container Storage, Rm. 3602, Glovebox 1 (90.70) (90.141)⊕	Permitted container storage area; in active use.	D001-D011, D018, D019, D022, D027, D028, D029, D035, D040, F001-F003, F005
AB	371.1	371	Vault Container Storage, Rm. 1101 (90.12)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005
AA	371.1	371	Vault Container Storage, Rm. 1208 (90.15)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005
AK	371.1	371	Vault Container Storage, Rm. 3202 (90.72)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005
AK	371.1	371	Vault Container Storage, Rm. 3204 (90.96)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005
26	371.1	371	Vault Container Storage, Rm. 3602 (90.70)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005
35	371.1	371	Vault Container Storage, Rm. 3606 (90.2)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005
9	371.1	371	Vault Container Storage, Stacker Retriever (90.100)⊕	Permitted container storage area; in active use.	D003-D011, D018, D019, D035, D040, F001-F003, F005

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Unit #	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
12	371.3A	371	Caustic Waste Treatment System: Rms. 1103, 1105, 1113, 1115; Gloveboxes 18 & 2404; Tanks D-2401A, B, C, & D; and Tanks D-2402A & B (91.001-91.006) ⊕	Permitted treatment unit; in active use.	D002, D006, D008, D010, D011
30	371.3B	371	Combustible Residues Stabilization Process (Rm. 3701), Gloveboxes 1509, 1509A, Shredder, Franklin-Miller Model TM 1616	Permitted treatment unit; in active use.	D002, D004-D011, D018, D019, D035, D040, F001, F002, F003, F005
17	371.3C	371	Fluoride Treatment Process (Rm. 3515, GB-32)	Permitted treatment unit; in active use.	D007, D008, D010
AH	90.4	371	Container Storage, Rm. 3543	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

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Set/Area*	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
6	90.8	371	Container Storage, Rm. 3567A	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
12	90.14	371	Container Storage, Rm. 1111	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
12	90.19	371	Container Storage, Rm. 1115	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

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Set/Area*	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
6	90.71	371	Container Storage, Rm. 3511	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
23	90.94	371	Container Storage, Rm. 3331	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
23	90.95	371	Container Storage, Rm. 3327	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359

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Sequence	Unit #	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
7	90.104	371	Container Storage, Glovebox 37C in Rm. 3305	Mixed residue container storage unit; not in active use.	D001-D012, D015-D019, D021-D029, D033, D035-D043, F001-F003, F005-F007, F009, F039, P011, P012, P014, P015, P022, P028, P029, P045, P062, P076, P087, P098, P101, P104-P106, P113, P119-P121, U002-U004, U019, U031, U037, U041, U042, U044, U055-U057, U067, U071, U074, U075, U077, U079, U080, U084, U098, U102, U107, U108, U112, U120-U123, U127, U131, U133, U134, U138, U144, U148, U151, U154, U158, U159, U161, U162, U165, U167, U169, U170, U188, U190, U191, U196, U201, U207, U209-U211, U213-U220, U225, U227, U228, U236, U239, U246, U328, U353, U359
12	N/A	371	Tank D-44A-1, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44A-2, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44A-4, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44A-5, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44A-6, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44B-1, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008

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APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Sequence	Unit #	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
12	N/A	371	Tank D-44B-2, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44B-4, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44B-5, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-44B-6, Rm. 1107	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43A-1, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43A-2, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43A-3, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43A-4, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43A-5, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008

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Unit #	Unit	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
12	N/A	371	Tank D-43B-1, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43B-2, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43B-3, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43B-4, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-43B-5, Rm. 1109	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	91.008	371	Tank D-160A, Rm. 1115	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	91.009	371	Tank D-160B, Rm. 1115	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-400A, Rm. 1115	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-400B, Rm. 1115	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008

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Surface	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
12	N/A	371	Tank D-400C, Rm. 1115	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-179, Rm. 1115	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	91.010	371	Tank D-2A, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	91.011	371	Tank D-2B, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-157A, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-157B, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-238A, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-238B, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-240A, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008

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Sub-unit	Unit ID	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
12	N/A	371	Tank D-240B, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	D-170, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	N/A	371	Tank D-171, Rm. 1117	Mixed residue tank; physically empty (Tap & Drain Area 12B); subject to quarterly inspections.	D002, D006, D008
12	91.012	371	Tank D-293A, Rm. 1127	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
12	91.013	371	Tank D-293B, Rm. 1127	Mixed residue tank; physically empty (Tap & Drain Area 12A); subject to quarterly inspections.	D002, D006, D008
15	91.014	371	Tank D-934A, Rm. 2223	Mixed residue tank; physically empty (Tap & Drain Area 7); subject to quarterly inspections.	D002, D006, D008
15	91.015	371	Tank D-934B, Rm. 2223	Mixed residue tank; physically empty (Tap & Drain Area 7); subject to quarterly inspections.	D002, D006, D008
13	91.016	371	Tank D-292A, Rm. 2317	Mixed residue tank; physically empty (Tap & Drain Area 7); subject to quarterly inspections.	D002, D006, D008
13	91.017	371	Tank D-292B, Rm. 2317	Mixed residue tank; physically empty (Tap & Drain Area 7); subject to quarterly inspections.	D002, D006, D008

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Reference	Unit #	Bldg #	Unit Description	Regulatory Status	EPA Waste Codes
3	N/A	371	Tank D-132A, Rm. 3517	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
3	N/A	371	Tank D-132B, Rm. 3517	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
3	N/A	371	Tank D-132C, Rm. 3517	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-173A, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-173B, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-68A, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-68B, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-6A, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-6B, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008

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[illegible]	Unit #	Bldg #	Unit Description	Regulatory Status	EPA Waste Codes
6	N/A	371	Tank T-6C, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-6D, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-7A, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-7B, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-7C, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-7D, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-9A, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Mixed Residue Tank T-9B, Rm. 3549	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-72A, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008

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Series	Unit	Bldg.	Unit Description	Regulatory Status	EPA Waste Codes
6	N/A	371	Tank D-72B, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Mixed Residue Tank D-66A, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Mixed Residue Tank D-66B, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Mixed Residue Tank T-4A, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-4B, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-4C, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-5A, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-5B, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-5C, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008

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[illegible]	[illegible]	Bldg. [illegible]	[illegible] Description	[illegible] Regulatory Status	[illegible] EPA Waste Codes
6	N/A	371	Tank T-28A, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-28B, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank T-28C, Rm. 3553	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	91.039	371	Tank D-55A, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections (when BIO permits.	D002, D006, D008
6	91.040	371	Tank D-55B, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-50A, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-50B, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-51A., Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-51B, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Sch. #	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
6	N/A	371	Tank D-59, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-69A, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-69B, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-69C, Rm. 3559	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	91.041	371	Tank D-49B, Rm. 3563	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	91.042	371	Tank D-49C, Rm. 3563	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	91.043	371	Tank D-49D, Rm. 3563	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-49A, Rm. 3563	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
6	N/A	371	Tank D-52A, Rm. 3563	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Unit No.	Bldg.	Unit Description	Regulatory Status	RCRA Waste Codes
6	N/A	371	Tank D-52B, Rm. 3563	Mixed residue tank; physically empty (Tap & Drain Area 2B); subject to quarterly inspections.	D002, D006, D008
4	N/A	371	Tank D-133, Rm. 3571	Mixed residue tank; physically empty (Tap & Drain Area 2A; subject to quarterly inspections.	D002, D006, D008
4	N/A	371	Tank D-150, Rm. 3571	Mixed residue tank; physically empty (Tap & Drain Area 2A; subject to quarterly inspections.	D002, D006, D008
4	N/A	371	Tank D-151, Rm. 3571	Mixed residue tank; physically empty (Tap & Drain Area 2A; subject to quarterly inspections.	D002, D006, D008
4	N/A	371	Tank D-152A, Rm. 3571	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
4	N/A	371	Tank D-152B, Rm. 3571	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
5	N/A	371	Tank D-134A, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
5	N/A	371	Tank D-134B, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
5	N/A	371	Tank D-134C, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Unit #	Bldg. #	Description	Regulatory Status	EPA Waste Codes
5	N/A	371	Tank D-135A, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
5	N/A	371	Tank D-135B, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
5	N/A	371	Tank D-289A, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
5	N/A	371	Tank D-289B, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
18	N/A	371	Tank D-289C, Rm. 3573	Mixed residue tank; physically empty (Tap & Drain Area 2A); subject to quarterly inspections.	D002, D006, D008
AN	374.1	374	Container Storage, Rm. 3813 (19)⊕	Permitted container storage unit; in active use.	D001-D011, D018, D019, D028, D029, D035, D038, D040, D043, F001-F003, F005-F009
18	374.1	374	Container Storage, Rms. 3809 and 3810	Permitted container storage unit; in active use	D001-D011, D018, D019, D028, D029, D035, D038, D040, D043, F001-F003, F005-F009
19	374.3	374	Waste Receiving & Neutralization Process, Rm. 2804: Tanks D-802 A (42.04), D-802 B (42.05), D-802 C (42.06), D804 A (42.50), D804 B (42.51), D-804 C (42.52), D-804 D (42.53), D-811 A (42.54), D-811 B (42.55), D-852 (42.69), D-875 (42.70), D-847, and D-851 ⊕	Permitted treatment unit; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Subpart	Unit #	Bldg. #	Unit Description	Regulatory Status	RCRA Waste Codes
18, 19	374.3	374	Acid Waste Neutralization Process, Rms. 3801, 2804, and 3805: Tanks D-806 (42.73), D-807 A (42.71), D-807 B (42.72), D-808 (42.75), D-843 (42.74) and D-942 ⊕	Permitted treatment unit; in active use (except for Tank D-843, which is RCRA stable per 98-DOE-17097 [10/22/98] and subject to quarterly inspections).	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
18	374.3	374	Precipitation Process, Rm. 3801: Tanks D-812 (42.56), D-813 (42.57), D-814 (42.58), D-815 (42.59), D-816 (42.60), D-817 (42.61), D-818 (42.62), D-819 (42.63), D-820 (42.64), D-821 (42.65), D-822 (42.66), D-823 (42.67), D-826 A (42.07), D-826 B (42.08), and Polishing Filter FL-831 (42.68) ⊕	Permitted treatment unit; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
18, 21	374.3	374	Evaporation Process, Rms. 3810, 4814, and outside B374: Tanks D-827 (42.10), D-830 (42.11), D-832 (42.12), D-834 (42.13), D-876 (42.16), D-879 (42.18), T-802 (42.19), T-803 (42.20), T-804 (42.21), and T-805 (42.22) ⊕	Permitted treatment unit; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area	Unit #	Bldg. #	Unit Description	Regulatory Status	EPA Waste Codes
18, 19, 21	374.3	374	Spray Dryer & Saltcrete Process, Rms. 2804, 3801, 3803, 3805, 3809, 3810, 4802, 4812: Tanks D-801 A (42.01), D-801 B (42.02), D-801 C (42.03), D-826 C (42.09), D-878 (42.17), D-883 A (42.27), D-883 B (42.28), D-884 (42.29); Spray Chamber W-803 (42.25); and Spray Dryer Baghouse FL-803 (42.26) ⊕	Permitted treatment unit; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
19, 21	374.3	374	Vacuum Filter & Sludge Solidification Process, Rms. 2804, 3801, 3803, 3805, 4805, and 4807: Tanks D-824 A (42.76), D-824 B (42.77), D-825 A (42.81), D-825 B (42.82), D-844 A (42.84), D-844 B (42.85), and D-848 (42.83); Drum Filter Basins FL-802 A (42.78) and FL-802 B (42.79); Sludge Dryer W-801 (42.80); Dry Sludge Hopper H-3; and Dry Sludge Conveyors CV-813A/B ⊕	Permitted treatment unit; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.50	near 881	Valve Vault 1	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.51	near 883	Valve Vault 2	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series

APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Unit #	Bldg #	Unit Description	Regulatory Status	EPA Waste Codes
N/A♦	40.52	near 889	Valve Vault 3	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.53	near 889	Valve Vault 4	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.54	near 889	Valve Vault 5	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.55	near 865	Valve Vault 6	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.56	near 707	Valve Vault 7	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.57	near 707	Valve Vault 8	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.58	near 707	Valve Vault 9	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.59	near 559	Valve Vault 10	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.60	near 559	Valve Vault 11	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.61	near 231	Valve Vault 12	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.62	near 374	Valve Vault 13	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.63	near 371	Valve Vault 14	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A♦	40.64	near 443	Valve Vault 15	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series

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APPENDIX A - BUILDING 371/374 RCRA-REGULATED UNITS

Set/Area*	Unit #	Bldg #	Unit Description	Regulatory Status	EPA Waste Codes
N/A$^{\phi}$	40.65	near 443	Valve Vault 16	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A$^{\phi}$	40.66	near 444	Valve Vault 17	Ancillary to Unit 374.3; RCRA Stable per 99-DOE-03494, 1/28/99); approved by CDPHE 8/23/99; subject to quarterly inspections.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A$^{\phi}$	40.67	Near 460	Valve Vault 18	Ancillary to Unit 374.3; RCRA Stable per 99-DOE-03494, 1/28/99); approved by CDPHE 8/23/99; subject to quarterly inspections.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A$^{\phi}$	40.68	near 444	Valve Vault 19	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A$^{\phi}$	40.69	near 444	Valve Vault 20	Ancillary to Unit 374.3; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series and "U" Series
N/A$^{\psi}$	43.01	south of 371	Process Waste Tank D-231A	Interim status tank; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series, "U" Series
N/A$^{\psi}$	43.02	south of 371	Process Waste Tank D-231B	Interim status tank; in active use.	D001, D002, D004-D011, F001-F003, F005-F009, "P" Series, "U" Series

$\oplus$ Numbers appearing in parentheses in the Unit Description column are former unit numbers.

ϕ The valve vaults and associated piping will be dispositioned during environmental restoration

ψ Tanks D-231A and D-231B will be drained during deactivation, then transferred to the Remediation, Industrial Building Decommissioning, and Site Services (RISS) Program for decommissioning.

* The Set/Area locations designated are based on the location of the RCRA unit's primary equipment and provided for information purposes.

APPENDIX B
BUILDING 371/374 RCRA UNIT-SPECIFIC CLOSURE INFORMATION SHEETS

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Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #	Unit Description	Current Closure Status
2A	N/A	Tank D-132A, Rm. 3517	Physically Empty
	N/A	Tank D-132B, Rm. 3517	Physically Empty
	N/A	Tank D-132C, Rm. 3517	Physically Empty
	N/A	Tank D-133, Rm. 3571	Physically Empty
	N/A	Tank D-150, Rm. 3571	Physically Empty
	N/A	Tank D-151, Rm. 3571	Physically Empty
	N/A	Tank D-152A, Rm. 3571	Physically Empty
	N/A	Tank D-152B, Rm. 3571	Physically Empty
	N/A	Tank D-134A, Rm. 3573	Physically Empty
	N/A	Tank D-134B, Rm. 3573	Physically Empty
	N/A	Tank D-134C, Rm. 3573	Physically Empty
	N/A	Tank D-135A, Rm. 3573	Physically Empty
	N/A	Tank D-135B, Rm. 3573	Physically Empty
	N/A	Tank D-289A, Rm. 3573	Physically Empty
	N/A	Tank D-289B, Rm. 3573	Physically Empty
	N/A	Tank D-289C, Rm. 3573	Physically Empty
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

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Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
2B	90.4	Container Storage, Rm. 3543	Not in Active Use
	N/A	Tank D-173A, Rm. 3549	Physically Empty
	N/A	Tank D-173B, Rm. 3549	Physically Empty
	N/A	Tank D-68A, Rm. 3549	Physically Empty
	N/A	Tank D-68B, Rm. 3549	Physically Empty
	N/A	Tank D-6A, Rm. 3549	Physically Empty
	N/A	Tank D-6B, Rm. 3549	Physically Empty
	N/A	Tank D-6C, Rm. 3549	Physically Empty
	N/A	Tank D-6D, Rm. 3549	Physically Empty
	N/A	Tank D-7A, Rm. 3549	Physically Empty
	N/A	Tank D-7B, Rm. 3549	Physically Empty
	N/A	Tank D-7C, Rm. 3549	Physically Empty
	N/A	Tank D-7D, Rm. 3549	Physically Empty
	N/A	Tank D-9A, Rm. 3549	Physically Empty
	N/A	Tank D-9B, Rm. 2317	Physically Empty
	N/A	Tank D-72A, Rm. 3553	Physically Empty
	N/A	Tank D-72B, Rm. 3553	Physically Empty
	N/A	Tank D-66A, Rm. 3553	Physically Empty
	N/A	Tank D-66B, Rm. 3553	Physically Empty
	N/A	Tank D-4A, Rm. 3553	Physically Empty
	N/A	Tank D-4B, Rm. 3553	Physically Empty
	N/A	Tank D-4C, Rm. 3553	Physically Empty
	N/A	Tank D-5A, Rm. 3553	Physically Empty
	N/A	Tank D-5B, Rm. 3553	Physically Empty
	N/A	Tank D-5C, Rm. 3553	Physically Empty
	N/A	Tank D-28A, Rm. 3553	Physically Empty
	N/A	Tank D-28B, Rm. 3553	Physically Empty
	N/A	Tank D-28C, Rm. 3553	Physically Empty
	91.039	Tank D-55A, Rm. 3559	Physically Empty
	91.040	Tank D-55B, Rm. 3559	Physically Empty
	N/A	Tank D-50A, Rm. 3559	Physically Empty
	N/A	Tank D-50B, Rm. 3559	Physically Empty
	N/A	Tank D-51A, Rm. 3559	Physically Empty
	N/A	Tank D-51B, Rm. 3559	Physically Empty
	N/A	Tank D-59, Rm. 3559	Physically Empty
	N/A	Tank D-69A, Rm. 3559	Physically Empty
	N/A	Tank D-69B, Rm. 3559	Physically Empty
	N/A	Tank D-69C, Rm. 3559	Physically Empty
	91.041	Tank D-49B, Rm. 3563	Physically Empty
	91.042	Tank D-49C, Rm. 3563	Physically Empty
	91.043	Tank D-49D, Rm. 3563	Physically Empty
	N/A	Tank D-49A, Rm. 3563	Physically Empty
	N/A	Tank D-52A, Rm. 3563	Physically Empty
	N/A	Tank D-52B, Rm. 3563	Physically Empty
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	

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SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
3	371.1	Vault Container Storage, Rm. 3202 (90.72)	In Active Use
	371.1	Vault Container Storage, Rm. 3204 (90.96)	In Active Use
	90.104	Glovebox Container Storage, Rm. 3305 (GB 37C)	Not in Active Use
	371.1	Container Storage, Rm. 3206 (90.9)	In Active Use
	371.1	Container Storage, Rm. 3305 (90.104)	In Active Use
	371.1	Glovebox Container Storage, Rm. 3206, GB40 (90.143) and GB 42	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
4	371.1	Vault Container Storage, Stacker Retriever (90.100)	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
4A	371.1	Container Storage, Rm. 1103	In Active Use
	371.1	Container Storage, Rm. 1210	In Active Use
	371.1	Vault Container Storage, Rm. 1101 (90.12)	In Active Use
	371.1	Vault Container Storage, Rm. 1208 (90.15)	In Active Use
	371.1	Caustic Waste Treatment System: Rms. 1103, 1105, 1113, 1115; Gloveboxes 18, 23, and 2404; Tanks D2401A, B, C, & D; and Tanks D02402A & B (91.001-91.006)	In Active Use
	90.14	Container Storage, Rm. 1111	Not in Active Use
	90.19	Container Storage, Rm. 1115	Not in Active Use
	N/A	Tank D-44A-1, Rm. 1107	Physically Empty
	N/A	Tank D-44A-2, Rm. 1107	Physically Empty
	N/A	Tank D-44A-4, Rm. 1107	Physically Empty
	N/A	Tank D-44A-5, Rm. 1107	Physically Empty
	N/A	Tank D-44A-6, Rm. 1107	Physically Empty
	N/A	Tank D-44B-1, Rm. 1107	Physically Empty
	N/A	Tank D-44B-2, Rm. 1107	Physically Empty
	N/A	Tank D-44B-4, Rm. 1107	Physically Empty
	N/A	Tank D-44B-5, Rm. 1107	Physically Empty
	N/A	Tank D-44B-6, Rm. 1107	Physically Empty
	N/A	Tank D-43A-1, Rm. 1109	Physically Empty
	N/A	Tank D-43A-2, Rm. 1109	Physically Empty
	N/A	Tank D-43A-3, Rm. 1109	Physically Empty
	N/A	Tank D-43A-4, Rm. 1109	Physically Empty
	N/A	Tank D-43A-5, Rm. 1109	Physically Empty
	N/A	Tank D-43B-1, Rm. 1109	Physically Empty
	N/A	Tank D-43B-2, Rm. 1109	Physically Empty
	N/A	Tank D-43B-3, Rm. 1109	Physically Empty
	N/A	Tank D-43B-4, Rm. 1109	Physically Empty
	N/A	Tank D-43B-5, Rm. 1109	Physically Empty
	91.008	Tank D-160A, Rm. 1115	Physically Empty
	91.009	Tank D-160B, Rm. 1115	Physically Empty
	N/A	Tank D-400A, Rm. 1115	Physically Empty
	N/A	Tank D-400B, Rm. 1115	Physically Empty
	N/A	Tank D-400C, Rm. 1115	Physically Empty
	N/A	Tank D-179, Rm. 1115	Physically Empty
	91.012	Tank D-293A, Rm. 1127	Physically Empty
	91.013	Tank D-293B, Rm. 1127	Physically Empty
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
4B	91.010	Tank D-2A, Rm. 1117	Physically Empty
	91.011	Tank D-2B, Rm. 1117	Physically Empty
	N/A	Tank D-157A, Rm. 1117	Physically Empty
	N/A	Tank D-157B, Rm. 1117	Physically Empty
	N/A	Tank D-238A, Rm. 1117	Physically Empty
	N/A	Tank D-238B, Rm. 1117	Physically Empty
	N/A	Tank D-240A, Rm. 1117	Physically Empty
	N/A	Tank D-240B, Rm. 1117	Physically Empty
	N/A	Tank D-170, Rm. 1117	Physically Empty
	N/A	Tank D-171, Rm. 1117	Physically Empty
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

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Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
5A/13	371.1	Container Storage, Rm. 2223/2207 (90.20/90.5)	In Active Use
5A	91.014	Tank D-934A, Rm. 2223	Physically Empty
	91.015	Tank D-934B, Rm. 2223	Physically Empty
	91.016	Tank D-292A, Rm. 2317	Physically Empty
	91.017	Tank D-292B, Rm. 2317	Physically Empty
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

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Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
5B	371.1	Container Storage, Rm. 2325 (90.16)	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
6	90.71	Container Storage, Rm. 3511	Not in Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SEF #	RCRA Unit #(s)	Unit Description	Current Closure Status
7	374.1	Container Storage, Rm. 3813 (19)	In Active Use
	374.1	Container Storage, Rm. 3809, 3810	In Active Use
	374.3	Waste Receiving and Neutralization Process, Rm. 2804: Tanks D802A (42.04), D802B (42.05), D802C (42.06), D804A (42.50), D804B (42.51), D804C (42.52), D804D (42.53), D811A (42.54), D811B (42.55), D852 (42.69), D875 (42.70), D847,and D851	In Active Use
	374.3	Acid Waste Neutralization Process, Rms: 3801, 2804, 3805: Tanks D806 (42.73), D807A (42.71), D807B (42.72), D808 (42.75), D843 (42.74), and D942	In Active Use except: Tank D843 is RCRA Stable
	374.3	Precipitation Process, Rm. 3801: Tanks D812(42.56), D813 (42.57), D814 (42.58), D815 (42.59), D816 (42.60), D817 (42.61), D818 (42.62), D819 (42.63), D820 (42.64), D821 (42.65), D822 (42.66), D823 (42.67), D826A (42.07), D826B (42.08), and Polishing Filter FL-831 (42.68)	In Active Use
	374.3	Evaporation Process, Rms: 3810, 4814, and Outside Building 374: Tanks: D827 (42.10), D830 (42.11), D832 (42.12), D834 (42.13), D876 (42.16), D879 (42.18), T802 (42.19), T803 (42.20), T804 (42.21), and T805 (42.22)	In Active Use
	374.3	Spray Dryer and Saltcrete Process, Rms: 2804, 3801, 3803, 3805, 3809, 3810, 4802, 4812: Tanks: D801A (42.01), D801B (42.02), D801C (42.03), D826C (42.09), D878 (42.17), D883A (42.27, D883B (42.28), D884 (42.29), Spray Chamber W-803 (42.25), and Spray Dryer Bag House FL-803 (42.26	In Active Use
	374.3	Vacuum Filter and Sludge Solidification Process, Rms: 2804, 3801, 3803, 3805, 4805, 4807: Tanks: D824A (42.76), D824B (42.77), D825A (42.81), D825B (42.82), D844A (42.84), D844B (42.85), D848 (42.83); Drum Filter Basins: FL-802A (42.78), FL-802B (42.79); Sludge Dryer W-801 (42.80); Dry Sludge Hopper H-3; and Dry Sludge Conveyors CD-813A/B	In Active Use except: Room 2804, 3803, 4805: Tank 807 (42.87), Vent Scrubber is not subject to RCRA
	43.01	Process Waste Tank D231A (south of 371)	In Active Use
	43.02	Process Waste Tank D231B (south of 371)	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
8	90.94	Container Storage, Rm. 3331	Not In Active Use
	90.95	Container Storage, Rm. 3327	Not In Active Use
	371.1	Container Storage, Rm. 3321 (90.6)	In Active Use
	371.1	Container Storage, Rm. 3341 (90.7)	In Active Use
	371.1	Glovebox Container Storage, Rm. 3408, GBs 72B and 72C (90.142)	In Active Use
	371.1	Glovebox Container Storage, Rm. 3412, GBs 48B and 48C (90.18)	In Active Use
	371.1	Glovebox Container Storage, Rm. 3602, GB 1 (90.70) (90.141)	In Active Use
	371.1	Vault Container Storage, Rm. 3602 (90.70)	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
9	371.1	Container Storage, Rm. 3187B (counter only) (90.11)	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

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Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
10	371.3B	Combustible Residues Stabilization Process (rm. 3701, Gloveboxes 1509, 1509A, Shredder, Franklin-Miller Model TM1616)	In Active Use
	371.1	Container Staging, Rm. 3709	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
11	371.1	Container Storage, Rm. 3501 (90.62)	In Active Use
	371.1	Container Staging, Rm. 3513	In Active Use
	371.1	Container Staging, Rm. 3541	In Active Use
	371.1	Vault Container Storage, Rm. 3606 (90.2)	In Active Use
	371.3C	Fluoride Treatment Process rm. 3515, Glovebox 32	In Active Use
	371.1	Container Storage, Rm. 3189 (90.1)	In Active Use
	371.1	Container Staging, Rm. 3301	In Active Use
	371.1	Container Staging, Rm. 3315 (90.103)	In Active Use
	371.1	Container Storage, Rm. 3420 (63) (90.63)	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

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Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
12	371.1	Container Storage, Rm. 2011	In Active Use
	371.1	Container Storage, Rm. 2306	In Active Use
	371.1	Container Storage, Rm. 2321	In Active Use
	90.8	Container Storage, Rm. 3567A	Not In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

Building 371/374
RCRA Unit-Specific Closure Information

SET #	RCRA Unit #(s)	Unit Description	Current Closure Status
13	371.1	Container Storage, Rm. 2202	In Active Use
	371.1	Container Storage, Rm. 2202A, 2202B, 2202C (90.10)	In Active Use
	371.1	Container Storage, Rm. 2207 (90.5)	In Active Use
	371.1	Container Storage, Rm. 2217	In Active Use
Closure Method:		RCRA-regulated units will be closed by removal or clean closed.	
Waste Disposal:		Non-contaminated concrete rubble will be managed in accordance with the RSOP For Recycling Concrete or packaged to meet disposal facility WAC. Other waste, including tanks, gloveboxes, ancillary equipment, contaminated concrete, etc., will be shipped directly to an approved disposal facility or stored in an onsite storage unit until shipment can be scheduled.	

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APPENDIX C
BUILDING 371/374 RCRA-REGULATED TANK UNITS AND RELATED DRAWINGS

These drawings are under assembled under a separate cover and may be obtained from the Building 371/374 Closure Project POC.

Drawing Number	Location	Description
SK-371-T0098868-01	B371, Rm. 1105	Tanks D-131A, D-131B, D-229A, D-229B
SK-371-T000364-01	B371, Rm. 1107	Tanks D-44A-1, D-44A-2, D-44A-4, D-44A-5, D-44A-6, D-44B-1, D-44B-2, D-44B-4, D-44B-5, D-44B-6
SK-371-T099509-01	B371, Rm. 1109	Tanks D-43A-1, D-43A-2, D-43A-3, D-43A-4, D-43A-5, D-43B-1, D-43B-2, D-43B-3, D-43B-4, D-43B-5
SK-371-T099509-02	B371, Rm. 1115	Tanks D-160A, D-160B, D-400A, D-400B, D-400C
SK-371-T0099539-20	B371, Rm. 1117	Tanks D-2A, D-2B, D-157A, D-157B, D-238A, D-238B, D-240A, D-240B, T-10, T-30, T-31
SK-371-T0099539-11	B371, Rm. 1125	Pumps
SK-371-T000012-01	B371, Crit Tank Pit	Criticality Tanks
SK-371-T0097922-03	B371, Rm. 2223	Tanks D-943A and D-943B
SK-371-NA-T000	B371, Rm. 2319	Piping
SK-371-T0102842-01	B371, Rm. 3517	Tanks D-64, D-65, D-132A, D-132B, D-132C
SK-371-T0099538-40	B371, Rm. 3549	Tanks T-9A, T-9B, T-6A, T-7A, T-6B, T-7B, T-6C, T-7C, T-6D, T-7D, D-173A, D-173B, D-68A, D-68B
SK-371-NA-000210-02	B371, Rm. 3553	Tanks T-4A, T-5A, T-4B, T-5B, T-4C, T-5C, T-28A, T-28B, T-28C, D-72A, D-72B
SK-371-T0102844-01	B371, Rm. 3559	Tanks D-50A, D-50B, D-51A, D-55A, D-55B, D-56, D-59, D-69A, D-69B, D-69C
SK-371-T0099538-02	B371, Rm. 3563	Tanks D-49A, D-49B, D-49C, D-49D, D-52A, D-52B
SK-371-T0102842-02	B371, Rm. 3571	Tanks D-133, D-150, D-151, D-152A, D-152B
SK-371-T0102842-03	B371, Rm. 3573	Tanks D-134A, D-134B, D-134C, D-135B, D-239B, D-289C
SK-371-T0099538-21	B371,Rm. 3547	Piping
SK-371-T0099538-01	B371, Rm. 3555	Piping
SK-371-NA-00174-01	B371, Rm. 2317	Tanks 9-B, 292-A, 292-B
25101-321-M	B374	Liquid Waste Treatment – Laundry Waste Storage Tanks D-801A, D-801B
2501-322-M	B374	Liquid Waste Treatment – Laundry Waste Storage Tank D-801C

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Drawing Number	Location	Description
2501-323-M	B374	Liquid Waste Treatment – Evaporator Feed Storage Tanks D-802A, D-802B
2501-324-M	B374	Liquid Waste Treatment – Evaporator Feed Storage Tank D-802C
2501-325-M	B374	Liquid Waste Treatment – 2nd and 3rd Stage Feed Storage Tanks D-804A, D-804B
25101-326-M	B374	Liquid Waste Treatment – 2nd and 3rd Stage Feed Storage Tanks D-804C, D-804D
25101-327-M	B374	Liquid Waste Treatment – Waste Unloading Tank D-843
25101-328A-M	B374	Liquid Waste Treatment – Phosphoric Acid Tank D-806
25101-328B-M	B374	Liquid Waste Treatment – Nitric Acid Tanks D-807A, D-807B
25101-329-M	B374	Liquid Waste Treatment – Nitrate Waste Neutralizer Tank D-808
25101-333A-M	B374	Liquid Waste Treatment – Basic Waste Storage Tank D-811A
25101-333B-M	B374	Liquid Waste Treatment – Basic Waste Storage Tank D-811B
25101-334-M	B374	Liquid Waste Treatment – 1st Stage Feed Tank D-812 & Reactor Tank D-813
25101-335-M	B374	Liquid Waste Treatment – 1st Stage Flocculator Tank D-814 & Clarifier Tank D-815
25101-336-M	B374	Liquid Waste Treatment – 2nd Stage Feed Tank D-816 and Reactor Tank D-817
25101-337-M	B374	Liquid Waste Treatment – 2nd Stage Flocculator Tank D-818 & Clarifier Tank D-819
25101-338-M	B374	Liquid Waste Treatment – 3rd Stage Feed Tank D-820 & Reactor Tank D-821
25101-339-M	B374	Liquid Waste Treatment – 3rd Stage Flocculator Tank D-822 & Clarifier Tank D-823
25101-341-M	B374	Liquid Waste Treatment – Pre-Coat Mixing Tank D-848
25101-342-M	B374	Liquid Waste Treatment – Feed Tank Collection System
25101-343A-M	B374	Liquid Waste Treatment – Drum Filter Feed Tank D-824A
25101-343B-M	B374	Liquid Waste Treatment – Drum Filter Feed Tank D-824B
25101-344A-M	B374	Liquid Waste Treatment – Rotary Drum Filtrate Receiving Tank D-825A
25101-344B -M	B374	Liquid Waste Treatment – Rotary Drum Filtrate Receiving Tank D-825B
25101-344C-M	B374	Liquid Waste Treatment – Rotary Drum Filtrate Pumps
25101-345A-M	B374	Liquid Waste Treatment – Vacuum System Mist Tank D-844A
25101-345B-M	B374	Liquid Waste Treatment – Vacuum System Mist Tank D-844B
25101-346-M	B374	Liquid Waste Treatment – Sludge Dryer W-801
25101-347-M	B374	Liquid Waste Treatment – Sludge Packaging System

Drawing Number	Location	Description
25101-348-M	B374	Liquid Waste Treatment – Vent Gas Absorber T-807
25101-349-M	B374	Liquid Waste Treatment – Chilled Water System Air Separator D-881, Expansion Tank D-880, and Pot Feeder D-882
25101-350A-M	B374	Liquid Waste Treatment – Clarifier Effluent Polishing Filter FL-831
25101-350B-M	B374	Liquid Waste Treatment - Clarifier Effluent Tanks D-826A, D-826B
25101-350C-M	B374	Liquid Waste Treatment – Clarifier Effluent Tank D-826C
25101-351-M	B374	Liquid Waste Treatment – Evaporator Feed Tank D-827
25101-352A-M	B374	Liquid Waste Treatment –1st Effect Vapor Body T-802
25101-352B-M	B374	Liquid Waste Treatment – Nitric Acid Tank D-845
25101-353-M	B374	Liquid Waste Treatment – 2nd Effect Vapor Body Tank T-803, 2nd Effect Flash Drum D-830
25101-354-M	B374	Liquid Waste Treatment – 3rd Effect Vapor Body Tank T-804, 3rd Effect Flash Drum D-832
25101-355A-M	B374	Liquid Waste Treatment – 4th Effect Vapor Body Tank T-805, 4th Effect Flash Drum D-876
25101-355B-M	B374	Liquid Waste Treatment – Evaporation 4th Effect, Makeup Water Holding Tank D-879
25101-355C-M	B374	Liquid Waste Treatment – Evaporation 4th Effect, Concentrated Salt Pumps
25101-359A-M	B374	Liquid Waste Treatment – Spray Dryer Feed Tank D-878
25101-359B-M	B374	Liquid Waste Treatment – Spray Dryer Furnace F-801
25101-360A-M	B374	Liquid Waste Treatment – Spray Dryer W-803
25101-360B-M	B374	Liquid Waste Treatment – Spray Dryer Bag Filter FL-803
25101-360C-M	B374	Liquid Waste Treatment – Spray Dryer Salt Transfer Tank D-884
25101-360D-M	B374	Liquid Waste Treatment – Spray Dryer Blowers and HEPA Filters
25101-363-M	B374	Liquid Waste Treatment – Product Water Distribution
25101-371-M	B374	Liquid Waste Treatment – Overflow Sump Tank D-852, Liquid Seal Tanks D-847 and D-851
25101-372-M	B374	Liquid Waste Treatment – Vent Header System
25101-600-M	B374	Liquid Waste Treatment – Product Water Storage Tanks T-808A and T-808B
25025-150A-M	B374	Liquid Waste Treatment – Cement Supply System
25025-150B-M	B374	Liquid Waste Treatment – Cement Receiving Hopper
25025-151-M	B374	Liquid Waste Treatment – Direct Cementation Process
25026-186A-M	B374	Liquid Waste Treatment – Immobilization Process Cement Transfer Tank D-885

Drawing Number	Location	Description
25026-186B-M	B374	Liquid Waste Treatment – Immobilization Process Mixing Tanks D-883A and D-883B
38545-001-M	B374	Liquid Waste Treatment – Neutralized Waste Tanks D-155A and D-155B
50424-001-M	B374	Liquid Waste Treatment – Process Waste Storage Tanks T-231A and 231B

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APPENDIX D

BUILDING 371/374 CLOSURE PROJECT SCHEDULE

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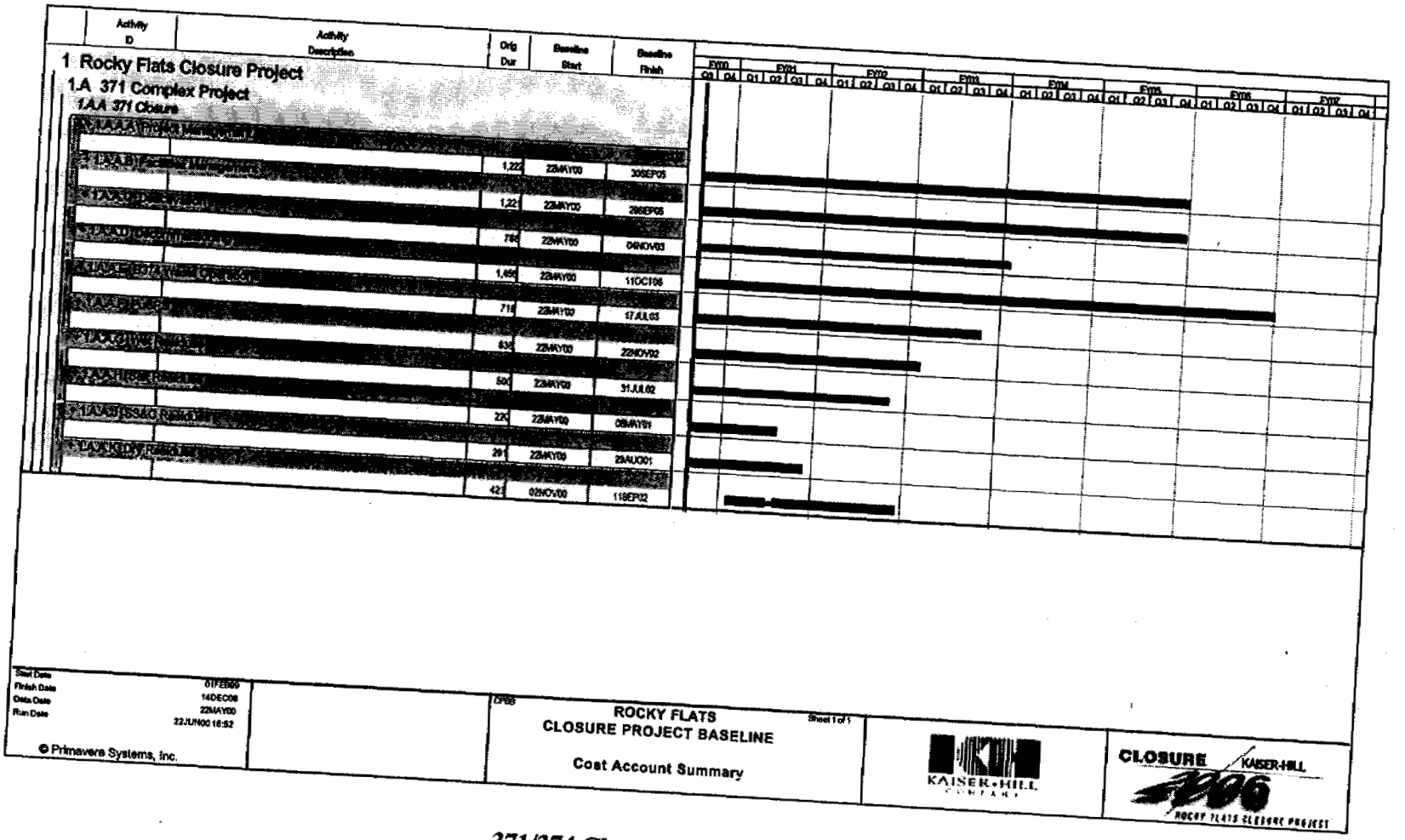

371/374 Closure Project Baseline Schedule

APPENDIX E

BUILDING 371/374 DECOMMISSIONING OPERATIONS PLAN COMMENT RESPONSIVENESS SUMMARY

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Appendix E
Comment Responsiveness Summary

City of Westminster

No.	Comment	Response
1	The 707, 776/777 and 771 DOP's that you prepared prior to this document, contained a great deal of information and were the most well prepared documents that I have reviewed to date. However, the 371/374 DOP is notable for its lack of information. It is understandable that it is difficult to be specific in this document since the demolition of this building is five or six years away. But as you know, this document provides the only opportunity for the community to comment on the decommissioning, decontamination and deconstruction of the 371 facility. A modification to this document should be considered in 2003 or 2004 that incorporates lessons learned from taking down buildings 776/777, 707, and 771.	The Building 371 DOP is consistent with the same level of detail provided in the Building 771 DOP. Both of these DOPs reference *the RSOP for Facility Disposition* and the *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities.* Since the RSOPs are referenced, none of the information contained within the RSOPs must be repeated, As a result, the size of the DOPs is reduced. However, the Building 371 DOP does contain information specific to the Building 371 Closure Project and it discuss how decommissioning activities will be conducted. The information in the DOP and the referenced RSOPs is consistent with previously approved DOPs.
2	The DOP doesn't mention the fact that most of the Site buildings that will provide back up for the decontamination and deconstruction of this facility will be removed. The Mobilization Section of the DOP discusses using portable toilets, providing shower facilities and hand wash units but doesn't discuss the infrastructure that will be left on the site to support the removal of building 371. At what point in time will the water and wastewater treatment facilities be removed? It would seem that if a document is prepared five years before it is needed that there should be discussion in the document of the support services that will be needed and how they will be provided.	Currently, the water treatment system is scheduled to be replaced by a mobile system or an other on-Site or off-Site system in 2003. Although portable toilets, shower facilities and hand wash units will be required and will be thoroughly planned, it is inappropriate to include that information in the DOP. The actual facilities required will be based on the utility strategy prepared by the Remediation, Industrial D&D, and Site Services (RISS) Project and the subcontractor that is selected to do the work.
3	Page 17 4.0 Project approach. During the course of the Building 371/374 Closure Project there may be instances where circumstances differ from those predicted. In such cases planned activities may be revised without revising the CPB. Comment: The Lead Regulatory Agency must review any major changes to the scope of the 371/374 Closure Project. This statement in the DOP provides an opportunity to make significant changes to the DOP without regulator and public opportunity to comment.	Modifications to the DOP will be based on whether or not proposed activities are within the scope of the referenced RSOPs. As long as the activities and methods proposed are within the scope of the RSOPs, no modification to the DOP will be necessary. The Closure Project Baseline (CPB) is a project management tool under strict configuration control and has specific conditions requiring its modification. It is anticipated that any difficulties/status pertaining to the Building 371 Closure Project will be discussed at future D&D "pizza meetings."

Appendix E
Comment Responsiveness Summary

City of Westminster

No.	Comment	Response
4	Page 18 states that "some radioactivity was detected on metal roofing which may be due to naturally occurring radioactive material such as radon decay products. This elevated activity will be investigated further through additional surveys and the collection of physical samples." Comment: Because radioactive material has been detected on metal roofing, speciation of the material becomes necessary. Is it plutonium, americium or uranium? It would not seem prudent to assume that the material on the roof is a radon decay product. There is no mention as to the radiation levels detected or how and when the roof will be decontaminated. This information should be contained in the DOP.	As indicated in the last sentence of this paragraph -- "This elevated activity will be investigated further through additional surveys and the collection of physical samples" (i.e., additional surveys and samples will be collected to determine the type and extent of contamination). Previous sampling events have shown that radon decays on exterior metal surfaces (Ra-226 to Po-210). If the physical samples indicate that the elevated readings are not the result of a radon decay product, the components will be removed as indicated in the *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities*, which is incorporated into the Building 371 DOP by reference.
5	Page 21 4.2.4 Pre-Demolition Survey. The section indicates that the lead regulatory agency, at its discretion, will review the results from the independent verification of the characterization data. Comment: The lead regulatory agency should review the independent verification of the characterization data. As this is the last major plutonium facility to be taken down, and it is a Level 3 facility, there will be a push to meet the 2006 closure deadline. The public needs assurance that this building has indeed been properly decontaminated before being taken down.	The LRA will have the opportunity to review sample results and/or conduct additional sampling during the pre-demolition survey (PDS). The statement in the DOP does not restrict the LRA as to the amount of data reviewed. Rather, the LRA decides how extensive the review will be. It is anticipated that the LRA will do a thorough review.

Appendix E
Comment Responsiveness Summary

City of Westminster

No.	Comment	Response
6	Page 37 Section 4.4.2 Removal of the CSV and I/O Stations. During a recent tour of building 371 and the stacker retriever area, I noted that the area within the CSV is inerted with nitrogen. This indicates that the area is "hot". Page 38 of the DOP indicates that the CSV will be de-inerted and adapters will be installed to provide for insertion of a passive aerosol fog into the east and west sections of the CSV, the S/R transfer bay and maintenance bay will be fogged to encapsulate the contaminants on the interior surfaces of the vault and reduce the possibility for airborne contamination. Manned entry to the CSV will be accomplished in powered air purifying respirators. A durable fixative coating will be applied to the floor area to encapsulate remaining contaminants. The ability to "re-fog" the room will be maintained during the rack removal and initial decontamination operations. The paragraph ends stating that the CSV will be re-fogged. Comment: This area is highly contaminated with plutonium oxides necessitating the need for workers to use air-purifying respirators. Insertion of adapters in order to insert an aerosol fog is vague. This section needs to be more explicit. There is a lot of fogging going on and I am not sure that workers will be properly protected. Please provide detailed information on the type of fog that will be used. Also, Kaiser-Hill needs to look at new technologies for cleaning up this area. The risks to workers and the possibility for contamination to become airborne within the 371 facility are high. This item should be place on a list of technology needs and provided to the Department of Energy for immediate attention. Perhaps by 2005 some type of new technology will be available that could be used in lieu of multiple fogging.	The CSV and I/O Stations present risks similar to other decommissioning activities, and use of the fogging technique is the typical for controlling airborne contamination. Fogging has proven effective during both decommissioning activities and facility operations. If fogging proves to be inefficient in a particular area, breathing air will be used during the work activities to protect the worker. Worker health and safety is the top priority during decommissioning, and all work will be planned in accordance with the work processes outlined in *the RSOP for Facility Component Removal, Size Reduction and Decontamination Activities*, which is incorporated into the Building 371 DOP by reference. If a promising technology is developed during decommissioning, the technology will be evaluated for use. The *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities* will be modified to incorporate this technology if a Site-wide use is proposed. If this technology is only proposed for use on the Building 371 Closure Project, the Building 371 DOP will be modified. Prior to using any new technologies, the process will be discussed with the LRA and stakeholders at D&D "pizza meetings." As was the case with cerium (IV) nitric acid decontamination, several presentations may be made and tours may be offered, if appropriate. RFETS is continually looking for new technologies to make the work safer and more effective.

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7	Page 40, second paragraph last sentence indicates that floors or walls with deep contamination will be identified (as to depth of contaminants) and concrete will be removed during the decontamination process or the areas will be sealed and removed prior to demolition of structure. Page 40 Section 4.4.3.1 Incinerator Scrubber Canyon: The second paragraph, line four, states "the residual liquids and caustic crystals were cleaned up in the early 1990's and a painted coating was applied to seal the floor from future leaks. Most of this waste will be low level waste." Comment: Assuming that this area will be low level waste based on the fact that the area was cleaned up in 1990 and sealed may not be realistic. Caustic materials have the ability to eat through concrete in a very short period of time. There could be significant contamination under the seal and therefore the City recommends that the section be rewritten to include a statement that the floor will be sampled in order to properly characterize the remaining contamination beneath the seal.	As indicated on Page 33, Section 4.4, statements are made throughout the Building 371 DOP regarding the type(s) of waste an activity will create. These statements are based on process knowledge and included for information purposes. All waste will be characterized and packaged in accordance with Site Waste Management Programs, as described in the RSOPs. In-process characterization will be conducted during decommissioning to assess the hazards.
8	Pages 40-41, Section 4.4.3.2 Precipitation/Calcination Canyon. The section indicates "the precipitation process proceeded through a "hot start-up", during which numerous batches of nominal 100 gram per liter plutonium nitrate per 1 molar nitric acid slurries were dumped to the canyon floor. After testing was discontinued the floor was left pitted and paint peeled in places. Some localized area gram-levels of contamination may exist; however, due to the limited period of use, it is anticipated that excessive widespread penetration of contamination into concrete is unlikely." Comment: As stated above, it is not safe to assume that because the canyon had limited use that there is not widespread penetration of contamination. The concrete needs to be sampled to ensure that this is not the case. Please modify this section to state that the canyon floor will be properly sampled and characterized.	As indicated on Page 33, Section 4.4, statements are made throughout the Building 371 DOP regarding the type(s) of waste an activity will create. These statements are based on process knowledge and included for information purposes. All waste will be characterized and packaged in accordance with Site Waste Management Programs, as described in the RSOPs.

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9	Page 41, Section 4.4.3.4 Reduction Canyon. The last sentence in this paragraph notes that Glovebox 32 is currently being used to process residues, which may contribute an additional source of contamination to the reduction canyon. Comment: This statement goes back to my original comments that this DOP, which I understand is needed in order to provide decommissioning activities, is premature. This DOP needs to be re-issued as a modification in approximately 2003 when all the residues are processed in order to capture the additional contamination and decontamination that may be necessary after the building mission is complete.	In order to decommission the Site by 2006, some activities must be conducted concurrently within buildings. These concurrent activities should not have a negative impact on the decommissioning activities or the facility operations activities. In fact, many of the early decommissioning activities planned within Building 371 will allow additional space for completing waste packaging activities, which must be completed prior to final decommissioning of the facility. If a change in the scope of work takes it outside the scope of the Building 371 DOP, the DOP will be modified, as necessary.
10	Page 42, Section 4.4.3.8 Americium Processing Area. The paragraph states that "the equipment in the tank vault and ion exchange canyons was stripped out and the rooms converted to secured storage vaults to support residue and International Atomic Energy Agency (IAEA) monitored material storage. The valve maintenance areas and pump gloveboxes remain as installed and are reported to have become contaminated during ventilation reversals." Comment: The document does not mention at what point in time the IAEA monitored material storage will be removed from building 371. The section should contain a statement that after all the IAEA materials are removed the valve maintenance areas and pump gloveboxes will be decontaminated and/or sized reduced. This section needs more detail.	The IAEA monitored material storage area is scheduled to be closed during the second quarter of fiscal year 2003. Section 4.4.3, Removal of Canyons, contains a brief indication of how the canyons will be dispositioned in accordance with the *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities*, which is incorporated into the DOP by reference. The subsequent sections describe the history of the canyons and associated hazards.

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11	Page 45, section 4.5 Facility Demolition. The paragraph states that "the information contained in this section is based on the current planning basis. The actual sequence and selected methods may differ from what is indicated in this section. As long as the activity remains within the scope of the RSOP for Facility Disposition this DOP will not be modified. Actual demolition will not proceed until the lead regulatory agency has concurred with the PDSR and stakeholders have been notified of the demolition schedule and techniques to be used to demolish the facility." Comment: Any major changes to the DOP should be addressed with a modification. Approval of this "bare bones" DOP does not provide concurrence with what may happen to building 371 during the next five years and what may need to be accomplished in order to safely D&D this facility.	Modifications to the Building 371 DOP will be based on whether or not proposed activities are within the scope of the referenced RSOPs. As long as the activities and methods proposed are within the scope of the referenced RSOPs, no modification to the DOP will be required.
12	Page 46. It is noted on this page that during demolition, airborne dust will be monitored on a visual presence or absence criterion, with dust control water spray being applied as required from a fire hose equipped with a fog nozzle. Comment: During demolition, airborne dust will occur. Dust control water spray should be applied during these activities not only to protect against resuspension as much as possible, but also to protect the workers and others who may be onsite at that point in time. Please rewrite this statement to note that it is acknowledged that dust will occur and dust control water spray will be used.	Not all demolition activities generate dust. The statement indicates that all activities will be evaluated for dust generation. If dust is generated, it will be controlled. If dust is not generated, dust control will not be required. Dust generation will be evaluated and water will only be applied as necessary to control the dust.
13	Page 46, bullet eight indicates that there will be placement of an engineered backfill of the Building 371 footprint. Comment: The City of Westminster does not support leaving building foundations in place. Please review Westminster City Council Resolution 13, Series 98, that has been attached to several comment documents.	The Building 371 DOP states that items remaining below three feet of the final proposed grade must meet the unrestricted release criteria. Concrete that meets the unrestricted release criteria will not adversely impact Site closure. The Westminster Resolution does indicate that all buildings and foundations should be demolished and removed; however, the next sentence of that part goes on to state that the capping of contaminated areas is an unacceptable means of achieving cleanup and early closure. Since only items that meet the unrestricted release criteria will remain below three feet of the final proposed grade, the DOP meets the intent of the last sentence of that part to "clean contaminated areas of the Site to As Low As Reasonably Achievable (ALARA) standards."

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14	Page 53, third paragraph. This paragraph indicates that "the planned approach for demolition of the main portion of building 371 includes the use of explosives. The use of explosives will be enhanced by the beneficial effect of gravity, eliminating the need to move large quantities of soil away from the building walls. The roof structure and exterior walls will likely not require any explosive actions to initiate collapse relying solely on gravity to bring them down into the sub-basement void. This will provide a protective shell that will contain any projectiles issued from the interior blasts. Comment: Using explosives on the main portion of building 371 must be approved by the lead regulatory agency. Bringing the roof structure into the sub-basement does not meet the definition of building concrete rubble. Will the roof structure be removed? This action seems to circumvent the intent of the rubble RSOP which is to rubblize the concrete to a size that allows all empty spaces to be filled in the building excavation area that is left after the foundation is removed.	The inclusion of explosives in the Building DOP is the first step in evaluating the use of explosives on the main Building 371 structure and is based on the assumption that the structure will meet the unrestricted release criteria after decontamination and component removal activities are completed. The *RSOP for Facility Disposition* indicates that the Site must notify the LRA and stakeholders that explosives may be used as soon as it is proposed in the planning process. The DOP also provides for this notification and presents initial details regarding why explosives are proposed as the preferred demolition method. Additional information on the use of explosives and the particular methodology will be developed as the planning continues. A number of demolition options and controls are being considered and will be discussed at the D&D "pizza meetings," as they are developed. The roof of Building 371 is concrete, and it will not be removed prior to demolition. As indicated in the *RSOP for Facility Disposition*, the asbestos containing material (ACM) in the roof insulation will have to be removed prior to facility demolition.
15	Paragraph 5 page 53: The paragraph indicates that the use of explosives will be evaluated for its cost-effectiveness as compared to mechanical demolition techniques. Comment: Previous DOP's have indicated that the use of explosives is necessary in order to ensure the safety of workers due to the age of facilities and also because of the robustness of some of the inner walls of the facilities. This DOP indicates that the major consideration is now cost effectiveness. If using mechanical demolition techniques can be used to take a building down safely with minimal risk to workers, even if it takes a little more time, then it is the preferred alternative. Using explosives on Level 3 facilities still poses the risks of contamination becoming airborne and blowing into the downwind communities or re-contaminating what has already been cleaned up inside the facility. No matter how much effort is expended in cleaning up a highly contaminated facility some contamination will remain in the structure.	Although cost is a factor in selecting a demolition method, it is not the primary factor. The four paragraphs before the statement on the cost-effectiveness of using explosives outlines the difficulties associated with the use of mechanical demolition methods on the Building 371 structure. Eight bulleted items describe the hardened construction of Building 371, which will make it very difficult to use mechanical demolition methods. The most compelling reason to use explosives on the main Building 371 structure is safety. The industrial hazards associated with the demolition of a structure like Building 371, which reaches approximately 40 feet below the ground surface and constructed entirely of cast-in-place concrete, are numerous. The use of mechanical methods will also have cost and schedule impacts due to the controls that would be required to protect the worker. Explosives will allow the activities to be completed with minimal risks to the worker because the actual demolition will occur with the worker at a safe distance.

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16	Page 54 item 5. This item states "it is anticipated the rubble pile will be fairly flat and uniform and free of large voids from an implosion of the building. The pile will be left as it is with the backfilling operation proceeding directly over it. Voids created by large pieces of concrete structure leaning against an adjacent wall or support column stub will be eliminated using a wrecking ball. Exterior basement walls will be left in tact. Comment: This is unacceptable. Voids will be left in the concrete where surface water can percolate into the subsurface and cause any remaining contamination (may be hazardous as well as radionuclide) to move into the groundwater which eventually surfaces as seeps and moves to surface water. Also, by not having properly sized fill material an opportunity is left for burrowing animals to move into the area and establish a community.	The backfill process at Building 371 must meet the lifetime subsidence requirements in the *RSOP for Recycling Concrete*. If the engineering assessment indicates that a lifetime subsidence of less than 1% cannot be achieved, or the land configuration design basis or groundwater balance study indicate that the backfill will have a negative impact on long-term stewardship, the activity will not be completed as indicated in the DOP. After the explosives have been detonated and the fill has been compacted, at least 25 feet of fill will be added to bring the void to the current grade level. Burrowing animals rarely burrow past 5 feet; therefore, it is unlikely that the animals would reach the building concrete from the implosion 25 feet down. Since the *RSOP for Recycling Concrete* requires that the concrete meet the unrestricted release criteria, it is unlikely that groundwater will be contaminated by the concrete.
17	Page 54 item 6. "An opening in the basement wall will be made after the building is down and a bulldozer may be driven out onto the center of the collapsed building structure to manipulate the surface into a more reasonably uniform flat surface (if necessary). Three inch minus concrete backfill material created from the recycle of demolition debris will be used to fill remaining visible voids and air spaces and to create a flat backfill operation to conform with subsistence requirements in the RSOP for Recycling Concrete. Comment: Unless the concrete is rubbleized, there is no way of assuring that the remaining voids below what is visible are filled in. There will be ongoing subsidence in this area and a pathway for groundwater movement. This is unacceptable. The Concrete rubble RSOP is specific in its language as to what constitutes appropriate concrete fill.	The backfill process at Building 371 must meet the lifetime subsidence requirements in the *RSOP for Recycling Concrete*. If the engineering assessment indicates that a lifetime subsidence of less than 1% cannot be achieved, or the studies indicate that the backfill will have a negative impact on long-term stewardship; then the activity will not be completed as indicated in the DOP. If the engineering assessment indicates that the rubble will not meet the 1% subsidence requirement, then the rubble will be removed after the demolition and replaced in an engineered fashion.

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No.	Comment	Response
1	References to the Building 374 typing need to be revised to reflect the decision that it is a Type 3 facility.	Building 374 has been noted as a Type 3 facility throughout the DOP.
2	Section 2.1 (10th bullet), Section 4.4.2 (2nd paragraph), Section 4.4.3 (2nd paragraph), Section 4.4.3.7: Per RFCA, deactivation only applies to the removal of SNM. Some decommissioning activities are allowed to occur under the DPP prior to receiving an approved RFCA Decision Document.	The DOP was developed to address decommissioning activities. The deactivation information is included for information purposes.
3	Footnote "a" to Table 1: Why is a new cooling tower being constructed? Where will it be located? Will it be decommissioned under this DOP?	The new cooling tower was installed to replace the old cooling tower, which is unserviceable. The new unit is a one-story prefabricated unit, installed on a steel frame mounted to cast-in-place concrete piers directly east of the old cooling tower. It is anticipated that the unit will be able to be reused and will therefore be sold when it is no longer required. However, the unit may be decommissioned, and it is anticipated it would be a Type 1 facility.
4	Section 4.2.2 (last paragraph): Describe in detail the isolation controls and postings that have been implemented to prevent contamination for each Type 1 facility.	Isolation controls involve a posting on each door indicating that the facility has been surveyed, and if materials are going to be brought into the facility that could cause contamination, then management must be informed and the activity approved.
5	Table 3: Describe the scope of activities planned for dismantlement sets numbered 27 and 28.	Sets 27 and 28 have been removed from the list of Dismantlement Sets because there is no steelworker work within those areas.
6	Is the B371/374 Closure Project planning to remove any interior walls, floors, ceilings, or other building structural components within the scope of any of the dismantlement sets or decommissioning areas? If so, please specify in which sets/areas these activities will occur.	The floor in Set 29, located in the area of the removed Incinerator/Scrubber Canyon, was installed before the scrubber was removed. It is expected that this floor will be removed to facilitate PDS. The floor areas within Sets 16 and 17 may contain some deeper contamination from mission work. The floors in Sets 16 and 17 will be decontaminated or removed. At this time, no other areas have been identified.

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7	Figure 7: The figure seems to incorrectly show that process area operations are clean prior to performing structural area decontamination and surveys of process areas. The figure seems to incorrectly show that plenum area operations are clean prior to performing structural decontamination and surveys of plenum areas. Additionally, the figure shows that sprinkler systems will be discontinued while at the same time the figure shows that sprinklers will be reduced 50%. Please resolve these apparent discrepancies. Also, describe what is meant by a 50 % reduction in sprinklers, HEPA testing, and housekeeping.	The figure has been removed. The correct figure is in the *RSOP for Component Removal, Size Reduction and Decontamination Activities*, which is incorporated into the Building 371 DOP by reference.
8	Section 4.0: The last two sentences of this section needs to be revised to state, "In such cases, planned activities may be revised without revising the CPB consistent with RFCA and the DPP. Notable changes will be shared with the LRA . . . ."	The phrase "consistent with RFCA and the DPP" has been added to the DOP, but "notable" has not been substituted for significant.
9	Section 4.4: The last sentence of the first paragraph of this section needs to be amended to state, ". . . as long as the activity remains within the scope of the *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities*, and consistent with RFCA and the DPP, this DOP will not be modified."	The change has been made as requested.
10	Section 4.4.1, (7th paragraph from the end of section): The potential for release of contamination from open ductwork must also be considered when the open ductwork will remain connected to the ventilation system (especially, the possibility of the ventilation system going down must be considered).	The words "left open" has been changed to read: ". . . a HEPA filter will be installed in the opening . . . "
11	Section 4.4.1, (5th paragraph from the end of section): Specify the safety analysis and radiation protection thresholds that will allow plenums to be removed.	The safety analysis and radiation protection thresholds are specified in the Authorization Basis (AB) documentation (i.e., the B371 Basis for Interim Operation [BIO]).
12	Section 4.4.2: The 6th bullet under the second paragraph of this section indicates that I/O stations will be dismantled prior to the decontamination of the structure. However, the second to the last paragraph of this section states, "The I/O stations will be decontaminated when the CSV is decontaminated." Please resolve this apparent discrepancy.	The I/O stations have been included and will be dismantled in the scope of Set 9. Remaining I/O station surfaces will be decontaminated during structural decontamination efforts associated with Decommissioning Area AC.

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No.	Comment	Response
13	Section 4.4.2 (5th paragraph): Describe what is meant by the phrase, ". . . the man-lift will be covered . . . ."	The man-lift assembly will be stored in the maintenance bay area of the CSV during the fogging operations. In an effort to maintain the man-lift assembly, it will be minimally decontaminated and covered with plastic to protect it during the fogging operations.
14	Section 4.4.2 (4th paragraph, 5th paragraph, 7th paragraph, 8th paragraph, and last paragraph): There are several instances where it is stated that materials and equipment will be removed and managed as either TRU waste or LL waste. Since the CSV is a RCRA permitted unit, all material and equipment removed from the CSV must be adequately characterized for possible RCRA contamination.	As indicated on Page 33, Section 4.4, statements are made throughout the DOP regarding the type(s) of waste an activity will create. These statements are based on process knowledge and included for information purposes. All waste will be characterized and packaged in accordance with Site Waste Management Programs, as described in the RSOPs. In-process characterization will be conducted during the performance of decommissioning activities to assess the hazards.
15	Section 4.4.2 (5th paragraph): Describe how the adapters will be installed for the fogging activities. Will it be necessary to breach the CSV structure? How will releases of contamination from the CSV be released during the installation of the adapters.	The installation of the adapters for fogging activities will be designed during preparation of the Set 9 and Area AC work documents. The adapters will be installed in the doors of the CSV structure and airflow to the CSV will be maintained to preclude the release of contaminants (i.e., a negative pressure will be maintained inside the CSV relative to adjacent areas).
16	Section 4.4.3 (3rd paragraph): The first sentence of this paragraph states that mechanical and process equipment will be managed as TRU or LL waste. This seems to be inconsistent with what is stated in the previous paragraph (that this equipment will be managed as TRU or TRM waste). A hazardous waste determination must be made for all waste removed.	As indicated on Page 33, Section 4.4, statements are made throughout the DOP regarding the type(s) of waste an activity will create. These statements are based on process knowledge and included for information purposes. All waste will be characterized and packaged in accordance with Site Waste Management Programs, as described in the RSOPs. In-process characterization will be conducted during decommissioning activities to assess the hazards.
17	Sections 4.4.3.1, 4.4.3.2, and 4.4.3.5: The document states that Room 2327 is moderately contaminated and will be stripped out as LL waste. An adequate hazardous waste determination must be made for all wastes removed. Additionally, since there were known releases of acidic hazardous wastes, the cement floors in the Incinerator Scrubber Canyon, in the Precipitation/Calcination Canyon, and at least the localized etched areas and splash areas on the floor and walls in the Residue Ion Exchange Canyons should be sampled for radiological and chemical (RCRA) contamination or be removed and managed as mixed waste.	As indicated on Page 33, Section 4.4, statements are made throughout the DOP regarding the type(s) of waste an activity will create. These statements are based on process knowledge and included for information purposes. All waste will be characterized and packaged in accordance with Site Waste Management Programs, as described in the RSOPs. In-process characterization will be conducted during decommissioning activities to assess the hazards.

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18	Section 4.4.5.1: The first and third bullets in this section seem to be inconsistent. The first bullet describes the first step to prepare equipment for the centralized size reduction facility and states that the equipment will be decontaminated. The third bullet states that the third step will be to fix contamination on the equipment.	The first bullet describes the decontamination and removal of exterior equipment, piping, tanks (i.e., removal of material and equipment prior to segmentation/transfer to central size reduction). The third bullet refers to fixing the loose contamination on the exterior and interior surfaces of equipment being prepared for transfer to central size reduction (i.e., following removal of this equipment, the exterior and interior remaining surfaces will have loose contamination removed or fixed to mitigate against any contamination events during transfer).
19	Section 4.4.5.2: Information needs to be added to this section to describe ventilation and any other controls for preventing air releases of contamination when In Situ Size Reduction is being conducted in soft-sided containment.	The following sentence has been added to the text, "Soft-sided containments will be connected directly to Zone I or IA ventilation, or equipment with self-contained HEPA ventilation systems. Ventilation will be configured to maintain sufficient inward air flow to contain airborne contaminants."
20	Section 4.4.6: The second paragraph of this section mentions a schedule for Dismantlement Sets. Schedules need to be included for information purposes for the Dismantlement Sets and the Decommissioning Areas.	A schedule is included in Appendix D.
21	Section 4.4.6, Step 4: Describe what is meant by the phrase "sub-surface paint sampling." Additionally, removed paint debris must be subjected to an adequate hazardous waste determination to see if it is possibly TRM waste.	"Sub-surface paint sampling" describes the removal of surface paint to characterize surfaces that have been painted many times. This allows characterization of any contaminant material, which may have been captured between different paint layers.

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22	Section 4.4.6, Step 7: Describe how the depth of contamination will be determined for contaminated surfaces.	Determination of the "depth of contamination" of concrete surfaces may be conducted in the following manner: 1. Selection of appropriate surface area ("core"), expected to indicate the general characteristics of the depth of contamination of the surface (an area approximately 4"-6" diameter is selected). 2. Initial surface "fixed" radiological contamination determination measurement is performed. 3. Removal of surface material - approximately ¼" of material is removed by scarifying, scabbling, etc. 4. Vacuum dust/foreign material from the decontaminated "core" area. Surface radiological contamination measurement is performed. 5. Repeat steps 3 and 4 until surface meets unrestricted release criteria, or it is determined that complete removal of the surface will be required. There are many ways to determine depth of contamination; the above method is an example of one of those methods.
23	Section 4.5: The last sentence of the first paragraph of this section needs to be amended to state, "As long as the activity remains within the scope of the *RSOP for Facility Disposition*, and consistent with RFCA and the DPP, this DOP will not be modified."	The change has been made as requested.
24	Section 4.5: Language needs to be added stating that a Demolition Plan will be prepared and executed in accordance with the *RSOP for Facility Disposition*. Additional language needs to be added stating that air emissions control (including the preparation of a Dust Control Plan) and air monitoring will be planned and executed for demolition activities in accordance with the *RSOP for Facility Disposition*.	There is a reference to the *RSOP for Facility Disposition* at the beginning of Section 4.5. The *RSOP for Facility Disposition* requires that a Demolition Plan and Dust Control Plan be prepared. Every effort was made in the preparation of this DOP to refrain from repeating requirements and language from other documents and to include only Project-specific information. This was done to make the documents more concise and to minimize inconsistencies between documents.
25	Section 4.5: The complete characterization and subsequent management of the Under Building Contamination (UBC) sites associated with Buildings 371 and 374 must be described in the DOP.	Under building contamination (UBC) characterization and management are not within the scope of the Building 371 DOP. These will be addressed in the ER RSOP or other RFCA decision document. The UBC characterization and remediation, if necessary, will be completed prior to initiating demolition.

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26	Section 4.5: Language must be added to clearly state that demolition of the building will not occur until it meets free-release standards.	There is a reference to the *RSOP for Facility Disposition* at the beginning of Section 4.5. The *RSOP for Facility Disposition* may only be used on facilities that meet the unrestricted release criteria. Every effort was made in the preparation of this DOP to refrain from repeating requirements and language from other documents and to include only Project-specific information. This was done to make the documents more concise and to minimize inconsistencies between documents.
27	Section 4.5.2: Describe how wastewater generated from demolition dust control activities will be collected, contained, managed and disposed.	The water will be managed and handled in accordance with the Incidental Waters Program. If the water was used for controlling dust during contaminated activities, the water will be contained and treated, if necessary.
28	Section 4.5.4: Describe how the Type 2 tanks will be characterized for radiological contamination. The DOP needs to describe how containment structures for these tanks will be adequately characterized for radiological and chemical contamination. Additionally, describe how the tanks and containment structures will be managed if they do not meet the acceptable criteria for recycling. The DOP needs to describe how the soils beneath the Type 2 tanks and associated containment structures will be characterized before back-filling and grading activities occur. The DOP needs to describe the management of any contaminated soils encountered.	The tanks will be drained and rinsed to remove the reagents. The tanks will be characterized to determine the radiological contamination and dispositioned in accordance with the appropriate waste management and/or property management procedures. After the tanks are removed, the concrete will be surveyed/sampled in accordance with the Pre-Demolition Survey Plan (PDSP). The slab will be removed and dispositioned appropriately, as waste or recycled material. The soils and potential under-tank contamination are not within the scope of the DOP. These will be addressed in the ER RSOP or other RFCA decision document.

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29	Section 4.5.5: This section assumes that large tanks from Building 374 will be allowed to remain in place until demolition. However, it is possible that the tanks will need to be removed earlier in order to address under-building contamination. This section should describe how such a scenario would be managed. Additionally, describe how portions of the building that are below the ground surface (e.g., Room 2804 in Building 374) will be managed during the demolition phase. How will precipitation be managed after the roof is removed from these areas? Does RFETS intend to backfill these areas? Describe the rationale for abandoning the underground duct banks at the Building 371 Electrical Switch Yard. Do these duct banks have any lead sheathing?	UBC will be addressed in the ER RSOP or other RFCA decision document. If the tanks must be removed prior to demolition to allow access for remediation, the tanks will be size reduced in place or the roof will be breached to allow the tanks to be removed whole, and the tanks will be dispositioned in accordance with appropriate waste management procedures. Water will be managed throughout decommissioning in accordance with the Incidental Waters Program. All areas will be backfilled to current grade or as directed by ER. The underground duct banks will be abandoned in place because they are three feet below the current grade, and are not anticipated to be contaminated. If the duct banks contain lead sheathing, the sheathing will be removed.
30	Section 4.5.6, Step 5: The Division is not convinced that the rubble pile resulting from the collapse of the main portion of Building 371 will be ". . . fairly flat and uniform, and free of large voids." Thus, it is not appropriate to propose that the pile will be left as is with some surficial back filling as proposed.	The backfill process at Building 371 must meet the lifetime subsidence requirements in the *RSOP for Recycling Concrete*. If the engineering assessment indicates that a lifetime subsidence of less than 1% cannot be achieved, or the studies indicate that the backfill will have a negative impact on long term stewardship; the activity will not be completed as indicated in the DOP. If the engineering assessment indicates that the rubble will not meet the 1% subsidence requirement, then the rubble will be removed after the demolition and replaced in an engineered fashion.
31	Section 5: Have all waste chemicals been removed from the Exclusion Areas? If not, the DOP must describe how these remaining waste chemicals will be managed and disposed of.	The chemical exclusion areas were assigned incorrectly. A letter documented the removal of the Building 371 exclusion areas because it was determined that the exclusion areas assigned did not meet the criteria of inaccessible areas where chemicals would be expected.
32	Section 5.1.1: The last sentence of this section must be corrected to refer to idle equipment rather than mixed residue tanks.	The correction has been made as requested.
33	Section 5.2: The reference to 6 CCR 1007-3, Part 264.1(g)(6) is incorrect. Generator Treatment provisions are found under 6 CCR 1007-3, Section 100.21(d).	The correction has been made as requested.

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Colorado Department of Public Health and Environment (CDPHE)

No.	Comment	Response
34	Section 10: The DOP does not satisfy the notification requirements for the referenced RSOPs. Notification of the implementation of the RSOPs must follow the notification requirements specified in the respective RSOP.	The DOP does supply the necessary information for notification for the use of the RSOPs. Given the detail in the DOP, an additional notification seems needless when the information is already in the DOP. Annual updates will be provided to the LRA, SRA, and stakeholders at a D&D "pizza meeting." The updates will include progress over the previous year, and proposed activities for the coming year. In addition, the updates will include information concerning the current status of all RFCA decision documents, including implementation of the RSOPs. Periodic updates on specific closure project activities will also be provided through project meetings.
35	Section 11.1: The Building 371/374 Closure Project AR file also includes all other documents referenced in the *RSOP for Facility Disposition* and in the *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities*, and all related correspondence.	The Administrative Record (AR) File is one file with the documents indexed to the various RFCA decision documents. Documents contained in the RSOPs are incorporated into the Building 371 DOP by reference.

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Comment Responsiveness Summary

City of Broomfield

No.	Comment	Response
Cvr Ltr	The Broomfield cover letter contained several topics pertaining to programmatic issues associated with decommissioning and environmental restoration activities. The topics included: use of explosives, air monitoring, waste management, under building contamination, old process waste line, disposition of concrete rubble, and environmental stewardship.	The issues brought up in the cover letter that specifically apply to the Building 371 Closure Project and the scope of the Building 371 DOP are addressed in other responses contained in this comment responsiveness summary. The more programmatic issues will be considered during decommissioning and environmental stewardship planning and assessment.
1	Page 1, Executive Summary, ¶ 6 Broomfield understands the type of operations that occurred within Building 374, but does not agree with the typing of the facility as a Type 2 facility. Building 371 and 374 should be typed as a "Type 3" facility because they are one contiguous facility.	DOE and CDPHE met 1/29/01 in response to a letter from CDPHE stating that Building 374 was a Type 3 facility. At this meeting, DOE concurred with CDPHE's stance, and the DOP has been revised to identify Building 374 as a Type 3 facility.
2	Page 9, 2. Facility Description See # 1.	A letter has been sent from DOE to CDPHE modifying Building 374 from a Type 2 to a Type 3 facility. The DOP has been changed to identify Building 374 as a Type 3 facility.
3	Page 17, Project Approach Broomfield is concerned significant changes to the DOP will not involve a modification to the DOP, therefore there will be no opportunity for public input. When there is a significant change to the DOP, Broomfield request DOE and K-H keep them informed of the proposed changes prior to the implementation of the revised activities.	It is anticipated that the Building 371 Closure Project will use the D&D "pizza meetings" as a forum for updating stakeholders on Project progress, issues, and anticipated/potential minor and major modification to the DOP.
4	Page 22, 4.2.4 Pre-Demolition Survey Per revisions to the 771 DOP, the independent verification (IV) of "typically 5%" was removed and revised to state the percentage will be based on the regulators criteria. The type of facility and degree of contamination within the facility will dictate the percentage of IV performed.	Agreed. The type of independent verification will not be dictated by any general information provided in the DOP. The statement is included in the 771 and 371 DOPs for informational purposes.
5	Page 22, 4.3 Dismantlement Sets and Decommissioning Areas Broomfield is concerned with the use of the checklist being used for the entire facility. Each set or area should have its' own checklist to ensure all decontamination and decommissioning activities are addressed on the checklist. The checklist is not even mentioned in this section.	The checklists were developed to use as an assessment tool to determine if the activities proposed by a Project were within the scope of the RSOP. An evaluation was conducted during the development of the Building 371 Project Management Plan, and it was determined that all the proposed activities were within the scope of the RSOPs. In addition, the DOP contains all the information that would be required to be included in the checklist.

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6	Page 33, 4.4 Facility Component Removal, Size Reduction, and Decontamination, ¶ 1 Broomfield disagrees with the statement "as long as the activity remains within the scope of the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*, this DOP will not be revised". Broomfield has expressed concerns with the use of explosives in the mentioned RSOP document. If explosives are to be used in Building 371, the City strongly believes the DOP needs to be modified to include the specific plans associated with use of explosives and stakeholders should be apprised of the planned activities.	The use of explosives on a facility meeting the unrestricted release criteria is within the scope of the *RSOP for Facility Disposition*. However, the inclusion of explosives in the Building 371 DOP is the first step in evaluating the use of explosives on the main Building 371 structure and is based on the assumption that the structure will meet the unrestricted release criteria after decontamination and component removal activities are completed. The *RSOP for Facility Disposition* states that the Site must notify the LRA and stakeholders that explosives may be used as soon as it is proposed in the planning process. The DOP accomplishes that notification and provides the initial details on why explosives are proposed as the demolition method. Additional information on the explosives and particular methodology will be developed as the planning continues.
7	Page 34, 4.4.1 Removal of Ventilation and Filtration Systems, ¶ 1 The document states "due to the potential for radiological and/or chemical contamination with the ventilation systems ductwork, there is the possibility for releases of hazardous and/or radioactive materials to the environments". The risks will be removed if containments are constructed to control the release of hazardous and/or radioactive materials. Broomfield reiterates the purpose of the 371 DOP is to address planning and implementation of controls to ensure protection of human health and the environment. Construction of containments will ensure releases are controlled and contained.	Zone II ventilation will be operating while Zone I ventilation is being removed; therefore, there will be no pathway to the environment. The following statements have been removed from the DOP: "Due to the potential for radiological and/or chemical contamination with the ventilation systems ductwork, there is the possibility for releases of hazardous and/or radioactive materials to the environments."
8	Page 34, 4.4.1 Removal of Ventilation and Filtration Systems, ¶ 2 The City is very concerned with the application of fixative coatings to ventilation systems with reduced ventilation or no ventilation at all. This proposed activity will increase the potential for the release of airborne contaminants to the environment, especially if there is no containment structure. The DOP assumes the use of containments will be minimal for Zone I and Zone IA systems. Proper planning should include the use of containment structures for Zone I and Zone IA ventilation systems within Building 371.	The fixative sprayed on the inside of the duct fixes loose contamination and reduces the chance of loss of contamination control if the bags on the ends of the duct are ever breached.

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City of Broomfield

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9	Page 38, 4.4.2 Removal of the Centralized Storage Vault (CSV) Broomfield is concerned with the planning related to the removal of the CSV, known as the stacker-retriever, and the associated safety and decommissioning activities. Introduction of a man-lift, which will become radioactive waste, may not be the best plan for the CSV. Broomfield is also concerned when ventilation of the CSV will be reduced during fogging while decontamination operations are occurring within the repair bay of the CSV. The document states "manned entry to the CSV will be performed in air purifying respirators". How will the contamination levels be measured prior to entry to ensure the respirators are adequate to protect the workers? Broomfield requests more dialogue addressing the specially engineered winch system and the planning of the removal of the racks utilizing plasma arc or mechanical cutting. The DOP states decontamination will be performed until surface areas meet the applicable unrestricted release criteria described in the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities*. If the CSV cannot be free-released, what are the alternative plans?	It is not anticipated that the man-lift will become contaminated because as the man-lift is used, it will be periodically decontaminated. The initial entry will be made in breathing air and at that time, measurements will be taken to ensure the fogging has been successful. As the CSV activities are planned, additional detail can be shared with Broomfield and the other stakeholders on how the activities will be conducted. Any areas that cannot be decontaminated will be removed and dispositioned as waste. However, due to the type of contamination deposition in the CSV, it is not anticipated that it will be difficult to decontaminate that area.

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Comment Responsiveness Summary

City of Broomfield

No.	Comment	Response
10	Page 45, 4.5 Facility Demolition Broomfield strongly objects with the proposed method of demolition of the 371 facility. The DOP states; "as long as the activity remains within the scope of the *RSOP for Facility Disposition*, this DOP will not be modified". Broomfield voiced strong objections to the use of explosives during the public comment period for the RSOP for Facility Disposition. The City has requested additional information on the use of explosives to make a more knowledgeable decision. On page 46, completion of the 371/374 structure demolition will be made by using tracked equipment to remove remnant wall and foundation items to a depth at least 3 foot of grade. The majority of the 371/374 is well below 3 foot of grade and Broomfield does not agree with the DOP's proposed plan to implode the structure and use the concrete material as fill without the material being size reduced or adequately compacted to prevent subsidence or create additional water pathways. The DOP does not provide any alternative methods for demolition of the structure. Broomfield requests additional methods be incorporated into the DOP to ensure stewardship is an integral part of the remedy selection and meets stewardship long-term goals and objectives. Broomfield agrees characterization and removal of UBC should be an integral part of facility D&D activities, because the facility can act as containment during the removal of contaminated UBC. However, Broomfield does not agree with the plan to just bulldoze the facility into the sub-basement void without any analysis of the ramifications to long-term stewardship. The concrete material should be processed to meet the 3 inch minus criteria. A temporary concrete crusher should be utilized at the site to meet the criteria of the *Concrete Recycling RSOP*. Page 54, item # 5 and # 6 - The suggestion that someone on a bulldozer will make a hole in the basement wall to access the imploded material to compact the material seems extremely unsafe. It will be impossible to ensure all the concrete and void material is compacted. What will the QA/QC protocol be for ensuring the compaction requirements have been met and how will they be documented?	The inclusion of explosives in the Building 371 DOP is the first step in evaluating the use of explosives on the main Building 371 structure and it is based on the assumption that the structure will meet the unrestricted release criteria after decontamination and component removal activities are complete. The *RSOP for Facility Disposition* states that the Site must notify the LRA and stakeholders that explosives may be used as soon as it is proposed in the planning process. The DOP accomplishes that notification and provides the initial details on why explosives are proposed as the demolition method. Additional information on the explosives and particular methodology will be developed as the planning continues. A number of options for demolition and controls are being considered and will be discussed at the D&D "pizza meetings," as they are developed. The backfill process at Building 371 must meet the lifetime subsidence requirements in the *RSOP for Recycling Concrete*. If the engineering assessment indicates that a lifetime subsidence of less than 1% cannot be achieved, or the studies indicate that the backfill will have a negative impact on long term stewardship; then the activity will not be completed as indicated in the DOP. If the engineering assessment indicates that the rubble will not meet the 1% subsidence requirement, then the rubble will be removed after the demolition and placed in an engineered fashion.

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City of Broomfield

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10	(Comment continued from previous page) Page 54, note 17, states a clay-based soil will be used to bridge the fill material and the concrete. Please provide engineering calculations and methodologies of this proposed activity, so we may forward it our Engineering Department for review and comment.	
11	Page 56, Table 6. Building 371/374 Closure Project Waste and Recyclable Material Estimates What are the treatment/disposal plans for waste when the 374 treatment unit is no longer in service? With the sequence of events, LLW liquids may still be generated after 374 has been decommissioned. Will a temporary unit be on-site to treat the waste?	There are several options currently being explored for the replacement of the Building 374 aqueous waste treatment system, including a mobile unit, another on-Site treatment system, or off-Site treatment. These options are currently being evaluated for feasibility and cost-effectiveness.
12	Page 69, Applicable Or Relevant and Appropriate Requirements (ARARs) The 371/374 DOP has proposed activities that were not envisioned within the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition.* The ARARs should be included within the 371/374 DOP.	An evaluation was made during the preparation of the Building 371 DOP on whether or not the activities proposed for the decommissioning of the Building 371 Closure Project were within the scope of the RSOPs. It was determined that the methods and controls specified in the RSOPs were consistent with the proposed activities in the DOP, and there were no activities outside the scope of the RSOPs. The information provided in the DOP indicates the sequence of the decommissioning activities and outlines the process for decommissioning in accordance with the information and requirements of the RSOP. Therefore, a separate listing of ARARs for the Building 371 Closure Project is not necessary.

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13	Page 71, 8.0 Environmental Consequences The 371/374 DOP has proposed activities that were not envisioned within the *RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities* and the *RSOP for Facility Disposition.* Residual contamination is one of the biggest concerns addressing the environmental consequences associated with soils and geology. The 371 DOP does not address this issue. Air and water quality are also not addressed with the proposed changes to meet the National Environmental Policy Act (NEPA) impact analysis. The proposed changes need to be included within the NEPA analysis and added to the 371/374 DOP. Human health and safety, ecological impacts and cumulative effects resulting from the project's activities need to be defined along with associated adverse effects. The short-term uses versus long-term uses are not adequately addressed within the previously mentioned D&D activities because they state the D&D activities will not result in a change in land or resource use.	An evaluation was made during the preparation of the DOP on whether or not the activities proposed for the decommissioning of the Builidng 371 Closure Project were within the scope of the RSOPs. It was determined that the methods and controls specified in the RSOPs were consistent with the proposed activities in the DOP, and there were no activities outside the scope of the RSOPs. The information provided in the DOP indicates the sequence of the decommissioning activities and outlines the process for decommissioning in accordance with the information and requirements of the RSOP. Therefore, a separate evaluation of environmental consequences for the Building 371 Closure Project is not necessary.
14	Appendix A – Building 371/374 RCRA-Regulated Units The CSV/stacker-retriever in not listed in the appendix. I thought the CSV/stacker-retriever was a permitted unit? The unit is not listed in Appendix A. What are the associated EPA codes?	The stacker-retriever is on Page A-11, the last row.
15	Appendix B Building 371/374 RCRA Unit-Closure Information Sheets The document states, "Further RSOPs that address waste disposal will be utilized", what RSOPs is this document referring to? Please identify any new documents DOE envisions will be necessary in the future for waste disposal. Clarify what this statement means. Broomfield is opposed to any waste being disposed of on-site.	The sentence will be removed because it is inaccurate.
16	Attached maps The document does not address the attached 78 maps and what they are. The pages are not numbered, nor do they identify the room locations. Please provide the needed information associated with the attached maps so Broomfield may adequately review the maps and provide comments or questions related to the tanks and/or valves.	The pages will be numbered or an index will be placed before the drawings. The drawings were included for RCRA closure purposes, which are usually not reviewed by the public. A tour can be arranged to assist in making the drawings more meaningful.

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Rocky Flats Coalition of Local Governments (RFCLOG)

No.	Comment	Response
1	Future Modifications to the DOP The Coalition understands that Building 371 will not be demolished until 2005. The lack of detail in this document points out a need to revisit the 371 DOP at some time in the future in order to incorporate new information and lessons learned from the deconstruction of other major plutonium buildings that will occur prior to the 371 demolition. It is thus imperative that the process for modifying the DOP be clearly stated in this DOP and other relevant D&D decision documents. Towards this end, the discussion found on page 17 for incorporating "significant changes" should be expanded to more clearly explain the process the RFCA parties will follow to address such changes. In addition, the 371 DOP should be expanded to: • Define "significant changes"; • Describe how local governments and other stakeholders can provide input on any proposed changes; • Explain the process for resolving disagreements among the RFCA parties as to whether a change should require a modification to the DOP; and • Include a reference to the RFCA section that concerns DOP modifications	The Building 371 DOP is consistent with the same level of detail provided in the Building 771 DOP. Both of these DOPs reference *the RSOP for Facility Disposition* and the *RSOP for Facility Component Removal, Size Reduction and Decontamination Activities*. Since the RSOPs are referenced, none of the information contained within the RSOPs must be repeated, As a result, the size of the DOPs is reduced. However, the Building 371 DOP does contain information specific to the Building 371 Closure Project and it discuss how decommissioning activities will be conducted. The information in the DOP and the referenced RSOPs is consistent with previously approved DOPs. It is anticipated that the Building 371 Closure Project will use the D&D "pizza meetings" as a forum for updating stakeholders on Project progress, issues, and anticipated/potential minor and major modifications to the DOP. It is not anticipated that there will be disagreements about modifications to the DOP. If activities are proposed that are outside the scope of the referenced RSOPs, either the RSOPs or DOP will be modified. Modifications to RFCA decision documents are addressed in Part 10 of RFCA. Generally, all modifications (major, minor, and field) are initiated by DOE either verbally or in writing, depending on the modification. After notification, the LRA assesses the information provided and either concurs or does not concur on the selected modification type, and the process for approval as outlined in Part 10 is completed.

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Rocky Flats Coalition of Local Governments (RFCLOG)

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2	Integration of D&D and ER Activities According to the *Industrial Area Characterization and Remediation Strategy*, a central component of the Site's IA remediation strategy is the integration of D&D and ER during project planning. While this integrative approach can benefit closure, at this point in the project schedule there remains a significant amount of uncertainty regarding some key D&D and ER issues. Examples include the IA characterization results, soil action levels, the Site's water balance study results, and future decision document requirements. Along these lines, the 371 DOP does not sufficiently explain the process for integrating D&D and ER activities. Thus additional work might be required after the 371 project is completed to meet potential requirements for achieving the final site condition. To avoid that risk and the resulting increases in cost and work scope, the Coalition requests the following sections be expanded: • Alternatives Analysis and Selection; • Facility Demolition (especially Demolition of the Main Portion of Building 371); and • Environmental Consequences (in particular the NEPA review process).	The Building 371 DOP is a decommissioning document. The IA SAP, ER RSOP, Site Groundwater Balance Study, and Land Configuration Basis Design more thoroughly address the concerns documented in the comment. The *RSOP for Facility Disposition*, which is incorporated into the DOP by reference, contains a section on the decommissioning and ER transition and the alternative analysis. The *RSOP for Facility Disposition* and *RSOP for Component Removal, Size Reduction and Decontamination Activities*, which is incorporated into the DOP by reference, contain the environmental consequences analysis for the referenced activities. The detail in the facility demolition section is consistent with the level of detail in other DOPs. As the work planning continues, additional details will be available on the demolition activity. It is anticipated that the Building 371 Closure Project will use the D&D "pizza meetings" as a forum for providing additional information and details with respect to the decommissioning activities on the Building 371 Closure Project.

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Rocky Flats Coalition of Local Governments (RFCLOG)

No.	Comment	Response
3	ER Activities The Coalition has expressed concern about the plan to remove only the 771 UBC that exceeds current Tier I action levels. In our 771 letter, we also stated we have not agreed it is the best alternative to leave foundations in place after closure. On page 46 of the 371 DOP, there are references to performing ER activities before the building is taken down and to leaving portions of the building in the subsurface. To better evaluate these proposals, we request additional information on this portion of the project, and request that these issues be more completely addressed in the DOP. Specifically, • What ER activities are planned for the 371 UBC and the process lines under the building footprint? • If that is unknown at this time, when will the necessary characterization take place? • If UBC is found under the building, which decision document will contain the remediation strategy? The 371 DOP? An ER document? • Will this DOP be changed in the future to include descriptions this ER work and how it fits in with the overall project plan?	The UBC characterization and management are not within the scope of this DOP. These will be addressed in the ER RSOP or other ER RFCA decision document.
4	Stewardship The Coalition supports the safe and effective cleanup and closure of Rocky Flats and we emphasize that the remedies selected for the Site should reflect long-term stewardship needs and obligations. This approach to remedy selection is necessary as the current IA remediation strategy and recent DOPs call for leaving materials, such as building footings and foundations and hazardous and/or radioactive contaminants, in place at the completion of closure projects. We request that the Site incorporate stewardship into remedy selection by, as a first step, including a stewardship analysis in this DOP.	

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Rocky Flats Coalition of Local Governments (RFCLOG)

No.	Comment	Response
5	Use of Explosives The Coalition shares the Site's goal of conducting the 371 Closure Project in the safest, most effective manner. An issue of concern to many Board members is the use of explosives during demolition at Rocky Flats, so we appreciate the Site's commitment to the rigorous consultative process that is outlined in the *RSOP for Facility Disposition* and the 371 DOP. Just as the Coalition stated in its letter on the 771 DOP, we would like additional information to evaluate the decision to use explosives to demolish portions of Building 371. More specifically, Section 4.5.6 of the 371 DOP outlines the general plan for demolishing the main portion of Building 371. We understand that 371 was designed to be much more rugged than other Site buildings and that demolishing it will be a difficult task. The Coalition therefore requests this portion of the document be expanded to better document the use of explosives. Likewise, as additional information is generated, we encourage the Site to share this information with all interested parties.	The inclusion of explosives in the Building 371 DOP is the first step in evaluating the use of explosives on the main Building 371 structure and based on the assumption that the structure will meet the unrestricted release criteria after decontamination and component removal activities are complete. The *RSOP for Facility Disposition* states that the Site must notify the LRA and stakeholders that explosives may be used as soon as it is proposed in the planning process. The DOP accomplishes that notification and provides the initial details on why explosives are proposed as the demolition method. Additional information on the explosives and particular methodology will be developed as the planning continues. A number of options for demolition and controls are being considered and will be discussed at the D&D "pizza meetings," as they are developed.
6	Air Monitoring In the Coalition's 771 letter, we requested that project-specific air monitoring be performed. This request stands for the 371 project as well.	Project-specific air monitoring may be conducted during demolition activities, but the monitoring will be conducted in accordance with the Integrated Monitoring Plan (IMP). The IMP is updated annually with input from the stakeholders and LRA. The IMP is a more appropriate place to specify the project-specific monitoring because it is the Site-wide document for monitoring activities; the actual condition of the facilities within the Building 371 Closure Project will be known, therefore more appropriate monitoring activities can be selected; and stakeholders and the LRA have the opportunity for input.

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Rocky Flats Coalition of Local Governments (RFCLOG)

No.	Comment	Response
7	Exception to the *RSOP for Recycling Concrete* In our 771 letter, we requested additional detail on the proposal to use concrete slabs as fill material. The Site responded that additional engineering information would be prepared to document that the use of slabs will meet the requirements of the *RSOP for Recycling Concrete*. This engineering information should also be added to the 371 DOP when it becomes available. Please explain how, under the current demolition plans for 371, the requirements for the Concrete Recycling RSOP will be met, including addressing subsurface voids and subsidence.	The backfill process at Building 371 must meet the lifetime subsidence requirements in the *RSOP for Recycling Concrete*. If the engineering assessment indicates that a lifetime subsidence of less than 1% cannot be achieved, or the studies indicate that the backfill will have a negative impact on long term stewardship; then the activity will not be completed as indicated in the DOP. If the engineering assessment indicates that the rubble will not meet the 1% subsidence requirement, then the rubble will be removed after the demolition and placed in an engineered fashion. As the engineering assessments are complete, the information will be presented at a D&D "pizza meeting."
8	Independent Verification Surveys Page 21 of the DOP reads "DOE and/or the LRA will conduct an independent verification (IV) of the characterization data, if required." Under what circumstances would independent verification not be required? The Coalition requests more information on the independent verification step in the characterization process. Also, for the 707 DOP, the Site agreed to remove the phrase "typically five percent" from the final bullet point on IV surveys. It is appropriate to do so in the 371 DOP.	

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